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Central Bank Quarterly Bulletin



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Notes

1. The permission of the Government has been obtained for the use in this Bulletin of certain material compiled by the Central Statistics Office and Government Departments. The Bulletin also contains material which has been made available by the courtesy of licensed banks and other financial institutions.
2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
3. In some cases, owing to the rounding of figures, components do not add to the totals shown.
4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.
5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.
6. The following symbols are used:

e estimated	n.a. not available
p provisional	. . no figure to be expected
r revised	– nil or negligible
q quarter	f forecast
7. As far as possible, data available at mid-September 2012 are included in the Statistical Appendix (Section 3).
8. Updates of selected Tables from the Statistical Appendix, concerning monetary and financial market developments, are provided in *Money and Banking Statistics*. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at 353 1 2246380.

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Forecast Summary Table

	2009	2010	2011	2012 ^f	2013 ^f
Real Economic Activity					
(% change)					
Personal consumer expenditure	-5.4	1.0	-2.4	-1.8	-0.5
Public consumption	-4.4	-6.5	-4.3	-1.6	-0.7
Gross fixed capital formation	-27.6	-22.6	-12.6	-1.5	1.5
<i>of which:</i> Building and construction	-31.8	-30.1	-15.8	-9.4	-2.0
Machinery and equipment	-16.1	-8.4	-8.3	8.0	5.0
Exports of goods and services	-3.8	6.2	5.1	3.0	3.8
Imports of goods and services	-9.7	3.6	-0.3	1.6	2.7
Gross Domestic Product (GDP)	-5.5	-0.8	1.4	0.5	1.7
Gross National Product (GNP)	-8.1	0.9	-2.5	-0.4	0.7
External Trade and Payments					
Balance-of-Payments Current Account (€ million)	-3,763	1,782	1,785	3,946	5,670
Current Account (% of GNP)	-2.8	1.4	1.4	3.1	4.3
Prices, Costs and Competitiveness					
(% change)					
Harmonised Index of Consumer Prices (HICP)	-1.7	-1.6	1.1	2.0	1.3
<i>of which:</i> Goods	-4.1	-2.4	1.5	2.0	1.0
Services	1.2	-0.7	0.8	2.2	1.7
HICP excluding energy	-1.0	-2.7	0.0	1.2	1.3
Consumer Price Index (CPI)	-4.5	-1.0	2.6	1.8	1.0
Nominal Harmonised Competitiveness Indicator (Nominal HCI) ^a	1.0	-4.2	0.8	-1.7	n.a.
Compensation per Employee	-0.9	-2.8	0.7	0.8	0.6
Labour Market					
(% change year-on-year)					
Total employment	-8.1	-4.2	-2.1	-1.1	0.1
Labour force	-2.4	-2.2	-1.2	-0.6	-0.2
Unemployment rate (ILO)	11.8	13.6	14.4	14.8	14.5
Technical Assumptions^b					
(Annual average)					
EUR/USD exchange rate	1.39	1.33	1.39	1.28	1.28
EUR/GBP exchange rate	0.89	0.86	0.87	0.80	0.80
Oil price (\$ per barrel)	61.74	79.61	111.26	111.80	110.01
Interbank market – Euribor ^c (3-month fixed)	1.22	0.81	1.39	0.57	0.21

^a Based upon the annual change in the average nominal HCI for the first two months of 2012.

^b The technical assumption made is that exchange rates remain unchanged at their average levels in early-March. Oil prices and interest rates are assumed to move in line with the futures market.

^c Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area. Daily data from 30 December 1998 are available from www.euribor.org.

Comment

Helped by both the strong adherence to EU/IMF Programme targets and promised and actual initiatives at euro area level, recent months have seen a significant fall in Irish bond yields and, while still tentative, a regaining of access to market funding by the Irish sovereign. The significant improvement in market sentiment towards Ireland over the Summer owes much to the statement issued following the EU Summit in late June, recognising the imperative to break the vicious circle between banks and sovereigns and, specifically, the need to deal with Ireland's banking-related debt. Encouragingly, at the euro area level, market sentiment has also improved markedly since August, benefitting from the signals sent and steps taken by the ECB to put in place a new framework for intervention in bond markets. However, while recent developments have positive implications for the financing of governments and banks, risks remain, both at the European and domestic levels. At home, continued adherence to the Programme targets remains essential while, both here and elsewhere, progress on the resolution of euro area sovereign debt and banking problems will have a crucial bearing on how the wider environment evolves.

Economic developments also pose risks. In recent months, signs have emerged of a more marked slowdown at the broader international level, as the dampening impact of the strains in financial markets is felt. The small and open nature of the Irish economy, allied to the dependence on export growth to offset domestic economic weakness, makes the economy more vulnerable to a weakening in the external economic environment. Following GDP growth of 1.4 per cent in 2011, the latest data indicate that activity has slowed, with GDP growing by 0.5 per cent, on a year on year basis, in the first half of this year. The underlying narrative behind the data has not changed. Although slowing, exports continue to grow, while domestic demand remains weak. Reflecting the modest rate of growth and its composition, employment has yet to stabilise and it is likely to be next year before any employment growth starts to emerge.

These developments suggest a slight downward revision of around 0.2 per cent to GDP growth projections, as compared to those published in the last Bulletin. GDP growth is now projected to moderate to 0.5 per cent in 2012, with GNP forecast to contract by 0.4 per cent. This is expected to be followed by a pick-up in growth in 2013, to around 1.7 per cent

in GDP terms and 0.7 per cent in GNP terms, based on some recovery in external demand next year, alongside a gradual stabilisation in the domestic economy.

Despite the sluggishness of the domestic economy, there continues to be good progress on the key policy issues. Fiscal developments remain broadly on track, despite weaker than expected growth, with the outturn for this year likely to be below the Programme ceiling. While difficult decisions have to be made, there is no case for easing back on existing Programme commitments. The adverse effect of the fiscal contraction has not been worse than expected. The undershoot in Irish GDP since the beginning of the Programme is broadly comparable to what has occurred in the rest of the euro area and is largely a result of the weaker external environment. At a minimum, continued adherence to the deficit targets set out in the Programme is essential. Meeting these targets has helped Ireland to go some way towards re-establishing its reputation for credible policymaking and, in turn, has contributed significantly to lowering Irish bond yields and also enabling Ireland to qualify for a reconsideration of its banking debt, with the aim of improving sustainability. Indeed, without increasing the overall scale

of fiscal correction, there is a case for getting the adjustment over more quickly. This would shorten the already lengthy period of uncertainty which has been bad in itself and has doubtless slowed investment and other spending plans. By getting the economy back as fast as practicable onto a footing that offers confidence to all can help underpin a faster recovery of jobs and output.

In the banking sector, progress continues to be made, with the restructuring of the sector on-going. Deposit inflows at domestic banks continue to be recorded and are helping to gradually reduce the dependence on central bank funding, although this still remains at a high level. Banks are also continuing to adjust their balance sheets through deleveraging, with around two-thirds of the end-2013 PLAR target now having being achieved for the system as a whole. To guard against unintended consequences of deleveraging on the supply of credit or deposit pricing, the framework has been modified and will now also take account of banks' overall liquidity positions and the funding of core operations. However, funding challenges still remain and, allied to pressures from asset quality and returns, are continuing to pressure profitability. Banks have responded to this by moving to rationalise operations and reduce costs and, more generally, to adjust their business models. While banks continue to work through the legacy of the boom, it is important to ensure that an adequate flow of credit to households and the SME sector is provided.

Improving the economy's competitive position is a necessary prerequisite to increasing resilience to shocks and boost growth potential. This is especially so in circumstances where export growth has been a significant mitigating factor in the downturn. While Ireland has regained some of the competitiveness lost during the boom, the standard international measures of competitiveness and productivity growth overstate the degree of improvement which has occurred. As pointed out previously, the sectoral shift away from low productivity sectors in recent years has led to an overstatement of the recorded improvement. Reflecting this, the gains in competitiveness which have occurred need to be further reinforced. One important way to do this would be to press ahead with public sector reforms to deliver the maximum possible level of public services from the reduced resources available for expenditure. More generally, pay remains high in both the public and private sectors, adding to costs and prices in the economy, and no doubt discouraging expansion and investment projects by exporting firms. While the difficulties of addressing some of these issues are acknowledged, a lowering of the cost base, both public and private, would make a significant contribution to improving competitiveness and productivity in a fundamental way. This would make clear that the economy is capable of adapting to changed circumstances and would be very beneficial to the recovery process.

The Domestic Economy

Overview

- *Following growth in real GDP of 1.4 per cent in 2011, the rate of expansion in the Irish economy is projected to moderate this year. For 2012 as a whole, real GDP growth is expected to slow to about 0.5 per cent. A pick-up in GDP growth to about 1.7 per cent next year is predicated on some recovery in external demand and a gradual stabilisation in activity in the domestic economy. GNP is forecast to contract by about 0.4 per cent in 2012 with a modest expansion of 0.7 per cent projected for 2013. These projections represent a small downward revision to the outlook compared with that published in the previous Bulletin. The revisions are, in the main, accounted for by a less favourable outlook for external demand. This reflects a more protracted than expected slowdown in virtually all of Ireland's main trading partners which seems likely to extend into the first half of 2013. Domestic demand, although continuing to contract, is developing broadly in line with expectations and should stabilise during the course of next year.*
- *Export growth moderated in the second quarter of this year following relatively strong growth in the first quarter. Taking account of the outlook for external demand, a further moderation in the pace of export growth is likely in the second half of the year with a pick-up during the course of 2013 predicated on a corresponding recovery in world demand. Continuing the pattern of recent years, services exports have proved to be more dynamic than merchandise exports reflecting a gradual shift in the composition of exports from manufactured goods towards internationally traded services. This trend has contributed to the gradual elimination of what had been a significant services deficit and the probable emergence of a surplus in the services trade balance this year. The improvement in the services balance together with the continuation of a significant merchandise trade surplus will more than outweigh a likely increase in net factor income outflows. As a result, the surplus on the Current Account of the Balance of Payments is projected to increase in both 2012 and 2013.*
- *A further contraction across all components of domestic demand is likely this year although the pace of decline is expected to slow appreciably with the prospect of a gradual stabilisation in domestic demand in 2013. The decline in investment is likely to moderate significantly this year with the prospect of some growth next year. In the construction sector, housing output is unlikely to exceed 8,000 units this year but should stabilise at this level in 2013. Consumer demand remains weak, weighed down by declining disposable incomes and a high level of precautionary savings. However, there are signs of incipient recovery in consumer sentiment which should contribute to a gradual stabilisation in consumption expenditure over the next year, although a further modest decline is projected for 2013 as a whole. Finally, the on-going consolidation in the public finances points to further declines in public consumption both this year and next.*
- *Recent labour market trends, while showing continued weakness, are consistent with a gradual easing in the rate of decline in employment with a corresponding stabilisation in the unemployment rate, albeit at a high level. This reflects both the gradual stabilisation in domestic demand and the prospect of mainly export led growth for the next few years - a combination which is not particularly conducive to employment growth. Average employment is projected to decline by about 1.1 per cent this year before returning to marginal growth next year. Unemployment is likely to average 14.8 per cent this year, declining marginally to about 14.5 per cent in 2013.*
- *The annual rate of HICP inflation for 2012 is projected to be 2.0 per cent. This represents an upward revision from the previous Bulletin. The higher forecast*

reflects stronger than expected increases in energy prices over the past months together with a higher assumed path for oil prices over the remainder of the year. Excluding energy and indirect tax effects, domestically generated inflation is still weak, reflecting sluggish demand and high unemployment.

- *The HICP inflation rate is expected to moderate to 1.3 per cent next year. The impact of oil prices on inflation is weak next year as the pass-through mainly takes place in 2012. Services inflation is also expected to be subdued given the prospects for employment and growth. In addition, prospects for food prices are somewhat uncertain. It is worth noting that there is significant upside risk to the projections, arising from possible indirect tax measures contained in the forthcoming Budget 2013.*

Demand

Consumer spending

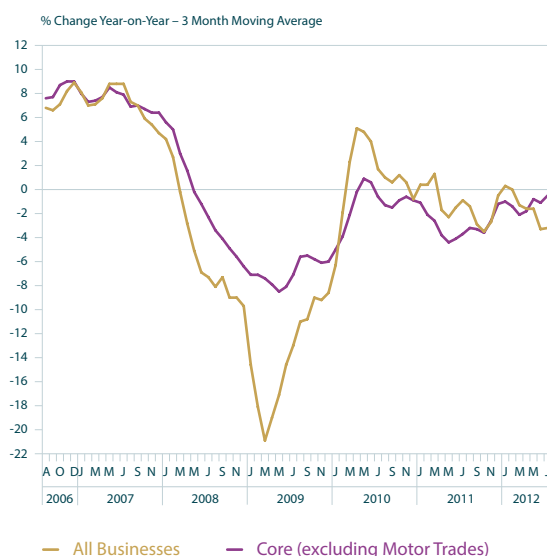
Consumer demand has remained weak this year as households continue efforts to repair impaired balance sheets against a background of declining real disposable incomes and continued, albeit moderating, weakness in consumer sentiment. Consumer spending continued on a downward path in the first half of this year following four consecutive years of decline which has seen real consumption contract by a cumulative 6.9 per cent. Preliminary estimates from recently released Quarterly National Accounts point to a slight easing in the rate of decline in the second quarter, with real consumption contracting at a quarterly rate of 0.4 per cent following a more pronounced decline of 1.9 per cent in the first quarter of the year. This may, to some extent, reflect timing issues relating to the two percentage point increase in the VAT rate on 1 January 2012.

Recent indicators point to a continued moderation in the rate of decline in consumption from mid-year. Core retail sales picked up in July, increasing by 1.1 per cent compared to June and down by just 0.5 per cent, year-on-year. Total retail sales have been somewhat weaker, declining by 1.5 per cent, year-on-year in July, weighed down by weak car sales with new car registrations down by 14.6 per cent in the year to July 2012. Consumer confidence has picked up from a low point at the end of 2011, but remains well below historical norms. However, given still weak labour market conditions and taking account of the impact of fiscal measures, disposable incomes are likely to decline in 2012 with little scope, at least in the near term, for a significant offsetting decline in the savings rate. On balance, a decline in real consumer spending of about 1.8 per cent seems likely this year. Taking account of prospects for disposable incomes next year and allowing for some modest decline in the savings rate, a gradual stabilisation in the volume of consumption is forecast for 2013 with a slight decline of about 0.5 per cent forecast for the year as a whole.

Table 1: Expenditure on Gross National Product 2011, 2012^f, 2013^f

	2011			2012 ^f			2013 ^f
	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Personal Consumption Expenditure	81308	-1.8	1.9	81369	-0.5	1.3	82035
Public Consumption	25410	-1.6	2.8	25710	-0.7	0.4	25625
Gross Domestic Fixed Capital Formation	16112	-1.5	0.3	15915	1.5	0.4	16216
<i>Building and Construction</i>	8800	-9.4	-1.0	7999	-2.0	0.0	7733
<i>Machinery and Equipment</i>	7312	8.0	1.6	7892	5.0	0.7	8483
Value of Physical Changes in Stocks	227			225			225
Statistical Discrepancy	1020			1020			1020
GROSS DOMESTIC EXPENDITURE	124077	-1.7	1.9	124239	-0.3	1.0	125121
Exports of Goods & Services	166791	3.0	2.2	175573	3.8	1.3	184640
FINAL DEMAND	290868	1.0	2.1	299812	2.14	1.2	309761
Imports of Goods & Services	-131875	1.6	1.8	-135355	2.7	1.0	-141436
GROSS DOMESTIC PRODUCT	158993	0.5	2.3	163457	1.7	1.3	168325
Net Factor Income from Rest of the World	-31977			-34109			-36341
GROSS NATIONAL PRODUCT	127016	-0.4	2.3	129348	0.7	1.3	131984

Chart 1: Index of Volume of Retail Sales



Source: CSO.

Investment

Investment in the economy's fixed capital infrastructure declined for four consecutive years over the 2008 to 2011 period, and by a cumulative 56 per cent, according to the 2011

National Accounts. Quarterly National Account data for the second quarter of 2012 point to a likely fifth year of contraction, albeit at a more moderate pace, as building and construction activity decreased by 10.2 per cent year-on-year, while machinery and equipment investment declined by 25.7 per cent – heavily influenced by a decline in aircraft expenditure. Within the building and construction sector, the housing and non-residential sub-sectors reported weakness, while there was some improvement in the civil engineering sector.

Tight credit conditions and significant supply overhangs mean that activity in the housing market is set to fall to a low of around 8,000 new units this year – mostly accounted for by one off units rather than apartments or schemes. Forward looking indicators suggest that housing output will remain at approximately this level next year, although there may be some limited upside risk given the current mismatch between supply and demand. The increases in repairs and maintenance expenditure reported in the first quarter, was offset by a large decline in the second quarter of 2012 and this weak trend is expected to continue into the latter stages

of 2012. Overall, housing market expenditure declined by 19.2 per cent and 16.4 per cent in the first half and second quarter of 2012, respectively.

On the non-residential side, the CSO's Production in Building and Construction Index (PBCI) points to a continued and broad-based weakness in the first half and second quarter of 2012. Commercial activity declined by 15.8 per cent year-on-year as businesses remained cautious about expansion in a weak domestic and international economic environment. While there have been some positive developments in terms of the inward FDI pipeline, the sector is unlikely to bolster activity more generally or offset the significant declines in government investment agreed to under the EU/IMF programme. The latest Ulster Bank Construction PMI (August 2012) corroborates this weak trend with an acceleration in the rate of contraction across all sectors. Investment in the non-residential sector is forecast to decline by 8 per cent this year, before moderating to a decline of 5 per cent next year.

Following a year-on-year decline of 0.6 per cent in the first half of 2012, the forecast for machinery and equipment (M&E) investment has been revised up slightly from the previous Bulletin on the back of increased expected expenditure on aircraft. However, the outlook for next year is for a moderation in M&E spending as investment in aircraft slows. The usual proviso to this forecast applies in that these transactions are subject to considerable uncertainty and have a limited (though not insignificant) impact on the performance on the domestic economy and employment. M&E expenditure is forecast to increase by 8 per cent this year, before slowing to 5 per cent in 2013. Overall, investment is projected to decline by 1.5 per cent in 2012 before increasing by a similar amount in 2013 – its first expansion and positive contribution to domestic demand in six years.

Stock Changes

Stock changes were positive last year and contributed about 0.5 percentage points to the growth in real GDP. The change in stocks is assumed to have a broadly neutral impact on the change in GDP in both 2012 and 2013.

Government Consumption

According to Annual National Accounts data for 2011, government consumption declined by 4.3 per cent in real terms in 2011. Taking account of measures announced in detail in Budget 2012 and outlined in general terms for next year, the real level of government consumption is projected to decline by 1.6 per cent and 0.7 per cent, respectively in 2012 and 2013.

External Demand and the Balance of Payments

Merchandise Trade

The latest Quarterly National Accounts (QNA) suggest renewed weakness in merchandise exports in the second quarter of this year. In the first quarter of 2012, the volume of merchandise exports grew by 0.2 per cent (revised downwards from 1.1 per cent in the previous QNA), while in the second the quarter the volume of exports declined by 4.4 per cent. The contraction in exports occurred against the backdrop of an anaemic growth performance among Ireland's key trading partners, in particular the UK and the euro area. Both of these economies contracted by 0.5 per cent in the second quarter compared to the same period in 2011. Monthly data from the CSO's External Trade publication show considerable volatility in the performance of exports. The monthly change in the value of merchandise exports in April was -18 per cent while growth of 8.4 per cent was recorded in May (these figures are all seasonally adjusted). As a result, it is useful to look at the data on an annualised basis. These data show a small decline in the annualised total value of merchandise exports beginning in the second quarter of 2012. A decline in exports from the broad chemicals sector (which accounts for close to two thirds of all goods exports) was only partially offset by increases in other sectors leading to a weaker overall export performance in the second quarter.

The resilience of Irish exports in 2009 and 2010 in the face of a sharp decline in world trade was a notable feature of the performance of the economy during that period. Based on the latest data from the Manufacturing Purchasing Managers' Index, there are

Table 2: Merchandise Trade (Adjusted) 2011, 2012^f, 2013^f

	2011			2012 ^f			2013 ^f
	EUR millions	Percentage change in volume	price	EUR millions	Percentage change in volume	price	EUR millions
Merchandise Exports	84854	-1.4	3.3	86467	0.0	1.3	87607
Merchandise Imports	-48270	-0.7	3.0	-49352	0.8	1.0	-50237
Merchandise Trade Balance (Adjusted)	36588			37115			37370
%GNP	25.8			28.7			28.3

Table 3: Balance of Payments 2011, 2012^f, 2013^f

Current Account Items	2011	2012 ^f	2013 ^f
Merchandise Trade Balance	36588	37115	37370
Services	-1810	-1937	-5638
Net Factor Income from Rest of the World	-31834	-33966	-36198
Current International Transfers	-1159	-1140	-1140
Balance on Current Account	1785	3946	5670
(% of GNP)	1.4	3.1	4.3

tentative signs of growth in exports in recent months despite the deterioration in the external environment and following a fall in exports in Q2. The new export orders index of the Manufacturing Purchasing Managers' Index stood at 56.7 in July 2012, its highest reading since mid-2011; 50 marks the boundary between expansion and contraction. This could signify some strength in exports in the third quarter.

Turning to the outlook for 2012 as a whole, the weak external demand experienced during the first two quarters is likely to persist for the remainder of the year. External demand assumptions have been revised downwards since the previous Bulletin with no significant improvement in the external environment expected during the second half of the year. The adverse impact of weak demand from Ireland's key trading partners is likely to be partially offset by on-going improvements in cost competitiveness. The weakness of the euro against sterling during the early months of 2012 has contributed to a gain in price competitiveness. Furthermore, as was the case in 2009 and 2010, favourable compositional

effects could lessen the impact on Irish exports from the sluggish performance of external demand. However, the Q2 merchandise export figures from the QNA were disappointing and suggest that growth in Ireland's main trading partners is adversely affecting exports. Reflecting the impact of recent downward revisions to external demand for the second half of 2012, a decline in the volume of merchandise exports of 1.4 per cent is projected for the year as a whole. Assuming that the current projected recovery in the international economy materialises in 2013, the volume of merchandise exports is expected to stabilise in 2013. In addition to uncertainty regarding short-term prospects for key trading partners, risks to the forecasts arise due to the concentrated nature of Irish merchandise exports and developments related to patent expiry affecting parts of the chemicals sector.

The total value of merchandise imports fell by 39 per cent between the last quarter of 2007 and the third quarter of 2009. The contraction in personal consumption and investment in addition to weak exports (which have a high import content) contributed to the overall

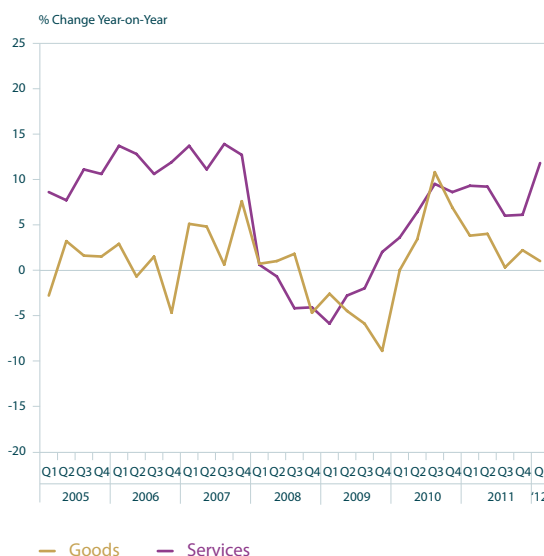
decline in merchandise imports. Since their trough at the end of 2009 there has been a return to value growth in imports, although volumes remain subdued. The value of goods imports expanded by 3 per cent in 2011 while import volumes declined by 2.3 per cent. A small increase in import volumes in Q1 of 0.7 per cent was followed by a contraction in Q2 of 7.5 per cent on a year-on-year basis. This reflects the decline in consumption and investment and the weakness of goods exports.

Given the relatively weak outlook for external demand in the second half of the year, merchandise import volumes are estimated to decline marginally, by 0.7 per cent in 2012. The expected improvement in the broader international economy in 2013, and the projected increase in Irish exports, is expected to support a return to stronger volume import growth of 0.8 per cent next year.

Services, Factor Incomes and International Transfers

Services exports declined between the end of 2007 and early 2009, leading to a widening of the services trade balance. Exports performed strongly in 2010 and 2011 with volume growth of 7.2 per cent and 7.7 per cent recorded in each year respectively. This growth in services exports has contributed to a narrowing of the services trade balance. The robust performance of services exports has continued during the first half of 2012, with annual volume growth of 11.8 per cent in Q1 followed by growth of 9 per cent in Q2. The vigorous performance of overall services exports masks considerable variation within individual sectors. Computer services account for around 40 per cent of total services exports and the strong performance of this sector over recent quarters has been the key driving force behind the expansion in overall services exports. The financial services and business services sectors have also recorded export growth on an annual basis over recent quarters. Following a decline of 12.6 per cent in 2010, tourism exports recovered in 2011 recording growth of 5.6 per cent for the year. There was a small decline in tourism exports in Q2 following growth of 1 per cent in Q1.

Chart 2: Volume of Exports



Source: CSO Quarterly National Accounts.

The strength of the recent services export performance is reflected in the new export orders index of the Services Purchasing Managers' Index which recorded sustained increases over recent months. The index stood at 54.1 in August marking the thirteenth consecutive month of expansion in new export orders. On the basis of the strong performance of services exports in the first half of the year and recent solid PMI figures, we expect the services sector to lead the expansion in total exports in 2012. With some improvement in external demand projected in 2013, acceleration in the rate of services export growth is expected. The services sector accounted for 49 per cent of all exports in 2011, up from 22 per cent in 2000.

Services imports grew by 1.1 per cent in 2011 on a volume basis with further increases in services imports recorded during the first half of 2012. The volume of imports grew by 1.3 per cent in Q1 and 1.2 per cent in Q2 according to the latest QNA figures. Data from the Balance of Payments indicate that much of the growth in services imports in recent quarters related to royalties and licences. This sector accounts for over two-thirds of total services imports. Turning to the outlook, acceleration in the pace of volume

import growth is expected in 2013 following a moderate expansion in 2012.

Based on the forecasts for exports and imports, the positive merchandise trade balance is expected to increase further in 2012 and 2013. The services trade balance stood at -€3.3 billion at the end of 2008, but has narrowed rapidly in recent years. A small positive quarterly services balance was recorded in the first quarter of 2012 followed by a surplus of €3.3 billion in Q2, the largest such surplus in the history of the quarterly series. Reflecting the closing of the negative services balance and the expansion in the already large positive merchandise trade balance, the overall positive trade balance in goods and services is expected to grow in 2012 and 2013.

Offsetting this increase in the trade balance is growth in net factor income flows abroad. Net factor outflows rose in 2011, reflecting increased profit repatriation by foreign multinationals located in Ireland and higher national debt interest payments abroad. Projections for 2012 and 2013 suggest a further increase in net factor outflows. However, taking account of the projected expansion in the trade balance the surplus on the current account of the balance of payments is forecast to rise from 1.4 per cent of GNP in 2011 to about 3.1 per cent in 2012 and 4.3 per cent in 2013.

Supply

Industry and Services Output

Following a year of modest growth in 2011, the overall manufacturing sector has regained some forward momentum, exhibiting a growth rate of 2.6 per cent over the first seven months of 2012, year-on-year. On a seasonally adjusted basis, the volume of industrial production for manufacturing industries from May 2012 to July 2012 was 4.4 per cent higher than in the preceding three month period. Output in the modern sector has rebounded, rising by 5.1 per cent in the

January to July 2012 period year-on-year, which compares to a decline of 2.9 per cent in the same seven month period of 2011.

This performance reflects, to some extent, a renewed momentum in the growth rate of the chemicals and pharmaceuticals category, where output has increased by 5.8 per cent in the May to July period compared to the previous quarter. Production volumes in other components of modern manufacturing appear to have improved as the year progressed, albeit with some volatility. One significant contributing factor has been the pick-up in growth in the computers, electronic and optical products category, following a protracted period of decline. Recent data for this category indicates that it increased by 4.6 per cent in the January to July period year-on-year and by 3.1 per cent in the May to July quarter compared to the previous three months.

Over the last three quarters, on a year-on-year basis, the traditional sector has shown signs of retrenchment, reporting a negative growth rate of 1.9 per cent year-on-year for the last quarter of 2011, with continued declines of 5.4 per cent and 2.1 per cent year-on-year for the first two quarters of 2012. As a result, prospects for improved output growth in this sector appear to be more muted than that experienced over the last few years. In the January-to-July period, the traditional sector contracted by 3 per cent. A major influence on the traditional sector is the performance of the food and beverage category, which has struggled in the first seven months of 2012. Production in the food products category declined by 2.3 per cent in the January to July period year-on-year, while the beverage category declined by 9.4 per cent over the same period. The positive performance in food products in recent years has, in the main, been driven by the “Other food” sub-category, which reported a year-on-year decline of 2.1 per cent over the January to July period, year-on-year.

Data available from the Quarterly National Accounts, while not directly comparable to the data on industrial output, shows a somewhat more positive picture of overall industrial

performance during the last three quarters of 2011. The broader industrial sector (excluding building and construction) expanded year-on-year by 3.7 per cent, 6.1 per cent and 3.9 per cent in the second, third and fourth quarters, respectively. These higher levels of activity also include some services activities, which are recorded for industry under an older classification system still used to compile the Quarterly National Accounts. Thus, the 2011 improvement in the performance of industry appears to be at least partly explained by increases in publishing/software services activities. The latest available data for the first half of 2012 show a continuation of the 2011 trend, with the year-on-year growth rate for industry of 2.5 per cent in volume terms, in the first quarter, accelerating to 7.8 per cent, year-on-year, in the second quarter.

Recent trends evident in the qualitative data from the NCB Manufacturing PMI index, point to an improvement in the sector up to the end-August 2012, with the seasonally-adjusted headline index registering 50.9 (any figure above 50 signifies growth). Although business conditions improved during the month, the improvement was at a slower pace than the July figure of 53.9. New business orders registered at 51.8, which are considered to be a major factor in the higher production levels of 51.0 recorded during the month. The continuing strength of new export orders at 53.4 is also somewhat reassuring. The Irish manufacturing PMI data appears in stark contrast to the euro zone trend, where manufacturing contracted for the 13th consecutive month in August, as exports from Germany fell at their steepest rate in three years. On the cost side, higher fuel prices, raw material costs and the weaker euro impacted negatively on certain manufacturers and are likely to continue to do so. Overall developments in 2012 indicate

mixed prospects for growth in the traditional sector and improved prospects for the modern sector, particularly if the pharmaceutical and chemical category and the computers, electronic and optical products category maintain their current momentum.

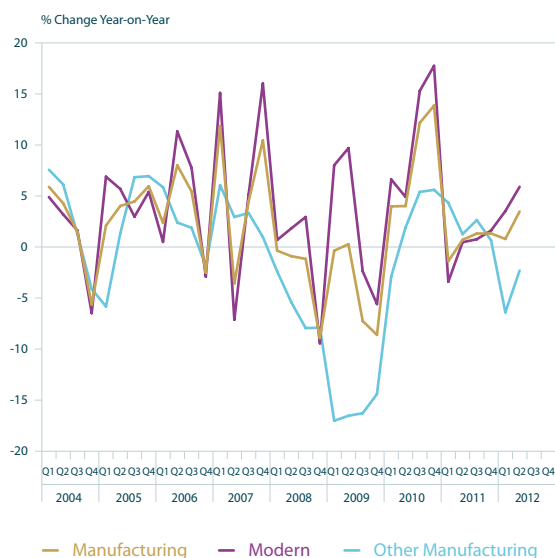
Turning to the services sector, the NCB Services PMI of 51.7 indicated that Ireland's services sector expanded during August 2012 for the first time in four months. The data also shows that firms continued to win new business from both domestic and overseas clients, with new export orders remaining above 50 for the 13th month in a row. This suggests that external demand for Irish based services remains fairly well insulated from the moderation in activity levels in the global economy.

The CSO monthly Services Value Index increased by 5.6 per cent in June 2012 when compared with June 2011. In June 2012 there were year-on-year increases in Transportation and Storage, Information and Communication and, to a lesser extent, in the Wholesale and Retail Trade categories. On a National Accounts basis, however, output in the Other Services category contracted in the second quarter of 2012 by 3.5 per cent year-on-year. Overall, both the domestic and external environment continue to indicate more modest expansion in the Irish services sector than in recent years.

Table 4: Industry and Manufacturing Output, Annual Percentage Change

	Modern	Other	Manufacturing	Total Industry
2000	19.1	5.5	14.6	14.3
2001	16.3	1.9	11.4	11.0
2002	13.0	-1.4	8.5	8.2
2003	7.0	2.1	5.6	5.7
2004	0.3	2.5	1.1	1.2
2005	5.2	0.5	4.1	4.0
2006	4.1	1.6	3.3	3.0
2007	6.8	3.0	5.5	5.2
2008	-1.2	-4.1	-2.9	-2.4
2009	2.6	-14.1	-3.9	-4.3
2010	10.7	2.5	8.3	7.7
2011	-0.2	0.3	0.4	0.0
2012f	2.2	-0.2	1.5	1.4
2013f	3.1	0.5	2.6	2.2
Average 2000-2011	7.0	0.0	4.7	4.5

Note: Industrial production indices are produced by the CSO and report output volumes excluding the effect of price changes. To remove the impact of prices Wholesale Price Indices (WPIs) are used as deflators. These WPIs were updated in June 2010 and have resulted in revisions to the series back to 2006. Overall these changes served to dampen output growth relative to what was published in Bulletins prior to Q4 2010 (particularly relating to the Modern sector).

Chart 3: Volume of Industrial Production

Source: CSO.

Agricultural Output

The most recent published agriculture price data for July 2012 show that output prices, while up on a year-on-year basis (+4.4 per cent), have been on a generally downward trend during the course of this year. On a seasonally adjusted basis, output prices overall were on average 2.3 per cent lower in the three months to July 2012 compared with the previous three months and about 3 per cent lower on a year-to-date basis. Milk prices have been particularly weak this year, with seasonally adjusted prices down by an average of 11.3 per cent in the three months to July compared to the previous three months. Over the same period, sheep prices declined by 4.8 per cent, pig prices were 0.3 per cent lower while cattle prices increase by 1.3 per cent. The largest price movement in recent months was an increase of almost 120 per cent in the price of potatoes in July over June 2012. Looking at input prices the data show a steady upward trend during the course of 2012 with prices up by 3.1 per cent overall in July. This was driven by a number of factors, in particular rising seeds, energy, fertilisers and feeding stuff prices of 7.7 per cent, 6.6 per cent, 2.6 per cent and 3.2 per cent, respectively.

Table 5: Summary of Agricultural Output and Income 2011, 2012^f, 2013^f

	2011 ^{ab}		% change in		2012 ^f		% change in		2013 ^f
	€ million	Value	Volume	Price	€ million	Value	Volume	Price	€ million
Goods Output at Producer Prices ^a	6,303	-1.6	0.3	-1.9	6,208	-0.2	0.6	-0.8	6,202
Intermediate Consumption	4,891	-0.1	0.2	-0.3	4,891	-1.7	0.3	-2.0	4,812
Net Subsidies plus Services Output less Expenses	1,825	-8.0			1,679	0.0			1,679
Operating Surplus	2,395	-7.6			2,213	-1.8			2,173

a Including the value of stock changes.

b CSO estimates.

f Central Bank of Ireland forecasts.

Data from the Quarterly National Accounts, though not directly comparable, points to a slowdown in the volume of growth experienced by the broader Agriculture, Forestry and Fishing sector. The volume of output was down 5.5 per cent on a seasonally adjusted basis between the first quarter and the second quarter of 2012, but was up by 0.5 per cent, year-on-year.

Turning to the outlook for agriculture, a continuation of the trend in the year to date for both input and output prices points to a negative outturn for the terms of trade for Irish agriculture in 2012. In terms of volume, agricultural output is again expected to increase in 2012, but expanding at a lower rate than previous years. These factors suggest that the outlook is for a contraction in agricultural incomes this year, as output growth continues its slowdown, farm subsidies regularise and the narrowing of the gap between output and input prices continues. Turning to the outlook for 2013, it is anticipated that farm incomes will also see some modest contraction. While these forecasts are subject to considerable uncertainty and, in addition to the impact of commodity price developments, a number of additional downside risks to this forecast remain.

The Labour Market

The labour market situation remains weak, with the pace of job losses accelerating in the second quarter of 2012. The latest Quarterly National Household Survey (QNHS) reveals

that employment declined by 33,400 (1.8 per cent) on an annual basis in the three months to June; an average of 16,800 jobs (0.9 per cent) were lost in the preceding two quarters, by comparison, a development that had suggested the employment situation was moving closer to stabilising. On a seasonally adjusted basis employment was 13,700 (0.8 per cent) lower than in the first quarter of the year when just over 10,000 jobs had been lost. Developments in average hours worked provided a more positive note, recording just their second annual increase since the downturn began. Furthermore, on a seasonally adjusted basis, employment has increased in half of the 14 economic sectors, with the largest gains coming in the 'agriculture', 'professional, scientific and technical' and 'accommodation and food' sectors. The biggest declines, by comparison, occurred in the 'construction', 'wholesale and retail', and 'industry' sectors. Around 160,000 jobs have now been lost in the construction sector since employment in the economy peaked in the final quarter of 2007, accounting for almost half of the total jobs that have been lost over this period. Data from the Earnings, Hours and Employment Cost Survey (EHECS) – which the Central Statistics Office believes provides a more reliable source for public sector employment estimates – reveal that the numbers employed in the public sector (including semi-state bodies) recorded annual declines of 4.9 and 6.3 per cent in the first and second quarters respectively.

Box A: “Labour input in Ireland: a focus on average hours worked”

By Mary Ryan

The current economic slowdown has been marked by pronounced falls in GDP in Ireland. While net trade has remained a positive contributor to GDP growth, domestic demand has had a negative impact. As domestic demand components are generally more labour intensive than the exporting sectors, the recession has impacted severely on demand for labour, most notably reflected in the rising unemployment rate. As noted in Conefrey¹ (2011), the potential rise in the unemployment rate was mitigated a little by a fall in the participation rate and also by outward migration. In addition, the average number of hours worked per week has fallen, which has also had the effect of holding the unemployment rate lower than it could otherwise have been. This box quantifies the impact of the economic slowdown on labour input and estimates the impact of changes in the population, the participation rate, the unemployment rate and the number of hours worked. The fall in hours worked is then reviewed by sector, noting that services sectors have been more likely than industry to adjust in terms of hours worked.

Box A Chart 1: Evolution of labour input in Ireland, 2001-2011

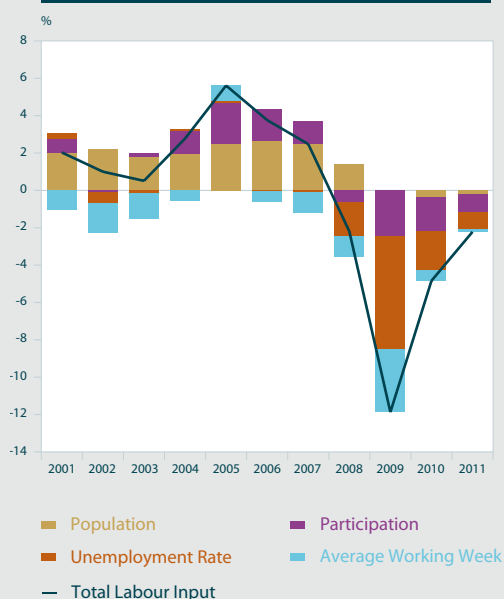


Chart 1 notes the growth path of labour input and its components from 2001 to 2011. The evolution of aggregate labour demand has been volatile throughout the decade. The export-led growth of 2002 and 2003 did not result in large-scale expansion of labour input, being concentrated in less labour-intensive areas; thereafter both the pronounced growth and subsequent contraction were driven by developments in more labour-intensive domestic demand. More recently, export growth has helped to stabilise GDP: however, the export performance is again concentrated largely in less labour-intensive areas.

¹ Conefrey, Thomas. “Unemployment and Labour Force Participation during the Recession”, Central Bank of Ireland Economic Letter Vol. 2011:4

Box A: "Labour input in Ireland: a focus on average hours worked"*By Mary Ryan*

The average hours worked in Ireland has been on a downward trend over a number of years, with a significant scaling back in labour hours required to meet falling demand. This is not unusual in an international context. Ohanian and Raffo² (2011) note that historically, US adjustment to labour input takes place more in terms of numbers employed than in hours worked, while in Europe and Japan, more use is made of the latter. Elsby et al (2010) note that the US labour response to the recession that began in 2007 was broadly in line with historical responses to recession, constituting about a 2:1 adjustment in terms of numbers employed to hours worked. In contrast, noting the comparatively low unemployment response in Germany, Burda and Hunt³ (2011) note that historically the average hours response in Germany is higher during recession than that in the US, with the bulk of the adjustment to labour input in recent years accounted for by reductions in average hours worked.

Table 1 shows the cumulative changes in value added and in labour input for the Irish economy and the largest (private) sectors in terms of employment between 2007 and 2011⁴. In general, the nature of the adjustment to labour input is similar to that of the US, being predominately through adjustment to numbers employed than hours worked with over a 70:30 ratio. Clearly, not all sectors have been equally affected by the downturn. Construction employment has been particularly hit. Being one of the most labour intensive sectors, the collapse in construction activity has resulted in widespread lay-offs and company closures, with less scope for adjustment in hours worked. The ratio of adjustment is substantially higher than average, at 5:1, indicating that adjustment through hours worked was not feasible in many instances. Manufacturing output has been notably counter-cyclical during the downturn, reflecting the gains in export performance in more recession-proof areas such as pharmaceuticals. That said many other parts of the manufacturing sector outside the multinational sector experienced more pro-cyclical behaviour. These are the more labour intensive parts of manufacturing, consequently recent years have seen a sharp reduction in labour input and a very high rate of adjustment in terms of numbers employed relative to hours worked, at a ratio of 10:1, despite the apparent growth in the manufacturing sector. Services (apart from ICT) are also showing strongly pro-cyclical behaviour⁵, bearing the brunt of the impact of declining consumer demand, particularly during 2009. The reductions in labour input in the services sectors reflect a higher propensity to change hours worked than the industry sectors. In particular, the accommodation and food sector adjusted about 40 per cent of the reduction in labour input along the intensive margin up to 2010: since then, there has been a marked decrease in employment during 2011, possibly reflecting some unsuccessful labour hoarding prior to that, which has pushed the margin of adjustment back toward the national average of 70:30.

² Ohanian and Raffo (2011). "Aggregate hours worked in OECD countries: new measurement and implications for business cycles", NBER Working Paper Series 17420

³ Burda and Hunt (2011). "What explains the German labour market miracle in the Great Recession?", Brookings Papers on Economic Activity, Spring 2011

⁴ There is a definition change in 2008 from the older NACE 1 sectoral classification to NACE 2. In some cases, the growth rate between 2007 and 2008 has been applied to reconcile the data. However, for these larger sectors, the employment and hours data are broadly comparable.

⁵ In contrast, labour input into the financial services and information and communication sectors has been largely stable between 2007 and 2011. Clearly, in relation to the latter, strong exports partly reflect conditions in ICT business and so employment is up over the period, albeit in relation to a relatively small employment base. Despite the financial crisis and the extent of consolidation of the banking sector here, there have been no large scale employment losses yet in this sector: numbers employed on average throughout 2011 are roughly on a par with 2007 values. Employment conditions in this sector can be expected to deteriorate in the coming year, particularly when redundancy conditions in mainstream banks are agreed.

Box A: “Labour input in Ireland: a focus on average hours worked”*By Mary Ryan***Box A Table 1:** Cumulative change (%) in value added and labour input between 2007 and 2011⁶

	Change in value added	Total change in labour input	Change in numbers employed	Change in average hours worked
All sectors	-14.4	-18.8	-14.5	-5.0
Manufacturing	+11.0	-22.8	-21.2	-2.1
Construction	-77.0	-64.2	-59.5	57.1
Wholesale and retail trade		-16.0	-12.2	-4.4
Accommodation and food service activities	-17.8	-22.1	-16.9	-6.2

Source: Central Bank of Ireland.

The reduction in the average hours worked reflects largely a move towards part-time working hours. This is particularly notable in male employment: traditionally part-time working is not a popular choice for male workers but the numbers have been rising. Where this is a feasible option, the social and economic benefits are evident: workers retain their skills and remain connected to the work force. The bulk of the adjustment to average hours worked occurred in 2009, with further downward movement in 2010 and very little extra adjustment during 2011 despite the additional fall in labour input. If these early adjustments to hours had not taken place, the levels of unemployment would have been pushed higher – a counterfactual simulation indicates that the unemployment rate would have risen to about 18.7 per cent in the absence of some adjustment on the hours side. Moreover, given that a significant hours adjustment occurred during 2009, it is likely that the long-term unemployment rate would have been pushed higher than it already stands, had this labour input change manifested as further increases to unemployment in that year.

⁶ Numbers for change in labour input do not necessarily sum to total. Where $L = N \times H$, $\% \Delta L = \% \Delta N + \% \Delta H + (\% \Delta N \times \% \Delta H)$, so for particularly large changes, the cross product is significant. Alternatively, the sum of changes in logged values (dlogs) may be used: however dlogs are less accurate for large percentage changes and so for big negative changes both the total change and change in numbers employed are likely to be overstated.

Against this backdrop of declining labour demand, the pace of the labour force contraction also accelerated. The annual decline of 29,500 (1.4 per cent) in the three months to June was considerably higher than in preceding quarters when an average fall of 8,600 (0.4 per cent) was recorded. As a result the size of the labour force has now declined by 7 percentage points since peaking in the first months of 2008. The decline in the year to the second quarter was primarily driven by demographic factors, with net outward migration estimated to have reduced the labour force by around 25,000 people. This negative demographic effect is almost exclusively concentrated in the 20 to 34 age

bracket. Changes in the level of participation, meanwhile, reduced the labour force by just under 5,000 as the participation rate fell from 60.7 to 60.1 per cent over the year. Labour force declines in recent years had been primarily driven by falling levels of participation – which had been as high as 64.6 per cent at the peak of the boom – and recent quarters have seen something of a reversal in this regard.

The strong decline in the labour force limited the pass through from employment loss to unemployment somewhat. The second quarter, nevertheless, saw a further increase in the number of people out of work.

Table 6: Employment, Labour Force and Unemployment 2010, 2011, 2012^f and 2013^f

	2010	2011	2012 ^f	2013
Agriculture	85	83	82	82
Industry (including construction)	360	342	333	334
Services	1,403	1,385	1,375	1,376
Total Employment	1,848	1,810	1,790	1,792
Unemployment	291	304	311	304
Labour Force	2,140	2,114	2,101	2,096
Unemployment Rate (%)	13.6	14.4	14.8	14.5

Note: Figures may not sum due to rounding.

Unemployment was 4,000 (1.3 per cent) higher in annual terms, while the seasonally adjusted unemployment rate was stable at 14.8 per cent, remaining at its highest level since the downturn began. The number of unemployed who have been out of work for one year or longer - and so are considered 'long term unemployed' - represented 60 per cent of total unemployment in the first quarter, up from 54 per cent a year ago, while the long-term unemployment rate was 8.8 per cent. Furthermore more than one-third of those in part-time employment consider themselves underemployed, and are looking for an additional part time job or full time employment. More timely Live Register data estimates a broadly stable unemployment rate in first months of the third quarter. The numbers signing on remain at elevated levels, but have fallen somewhat, averaging 443,000 in the first eight months of the year, down from 451,000 in the corresponding period of 2011.

Reflecting the downward revisions to the growth outlook, and developments in the first half of the year, the latest labour market projections are weaker than was the case at the time of the last Quarterly Bulletin. For the year as a whole employment is expected to contract once again - albeit at a weaker pace than in previous years - falling by 1.1 per cent. This decline reflects the combination of a weaker macroeconomic environment and sectoral specific developments, most notably in the financial and public sectors. On-going restructuring in the banking system is expected

to have a negative effect on employment in the former, with the impact of the incentivised early retirement scheme placing downward pressure on employment in the latter. While the labour force is also expected to decline at a slower pace this year - 0.6 per cent - this will not be sufficient to offset the fall in employment, resulting in an average unemployment rate of 14.8 per cent. Turning to 2013, meanwhile, stronger economic activity should result in a stabilisation of the employment situation; the fact that activity will continue to be driven by the less labour intensive export sector will limit the pass through to the labour market however. With the labour force expected to record a small decline, the numbers out of work should start to fall, resulting in an average unemployment rate of around 14.5 per cent.

Pay

The national income and expenditure accounts for 2011 indicate a small rise in economy-wide compensation per employee. Data from the CSO's Earnings, Hours and Employment Costs Survey (EHECS) for Q1 2012 showed that average weekly earnings increased by 1.3 per cent suggesting a continuation of the positive upward trend in earnings. However, the latest EHECS data for Q2 2012 indicates an easing of wage pressures with the year-on-year change in weekly earnings flat in the second quarter. A decomposition of the Q2 2012 figure reveals no increase in either hourly earnings or hours worked although the overall figure masks considerable variation across sectors. Average weekly earnings in

the private sector declined by 0.5 per cent on a year-on-year basis in the second quarter while public sector earnings grew by 2.8 per cent. The decline in private sector earnings was driven by a fall in average weekly paid hours with the overall hourly rate of pay remaining unchanged in the quarter. The data for Q2 show that trends in hourly rates of pay vary across sectors with declines recorded in financial, insurance and real estate activities and construction, while hourly pay in manufacturing increased modestly. The pace of decline in hourly earnings in the construction sector, which eased to -2.2 per cent in Q1, accelerated again to -4.6 per cent in Q2. According to the EHECS data, hourly earnings in construction have declined by 3.7 per cent since 2008 Q1 compared to a 3.4 per cent increase in manufacturing. The 2.8 per cent year-on-year increase in average weekly earnings in the public sector consisted of a 1.7 per cent increase in average hourly earnings and an increase in hours worked of 1.3 per cent.

Looking ahead, with the unemployment rate estimated to remain elevated in 2012 and 2013, little upward pressure on wage rates is expected. Consistent with the trend evident in the data up to 2012 Q2, the payment of annual salary increments is likely to lead to an increase in compensation per public sector employee in 2012. With public sector employment declining only marginally in 2013, a modest decrease in compensation per employee in the public sector is projected in 2013. Private sector hourly earnings have experienced little movement since Q1 2011 with the annual rate of change falling within the range +0.6 per cent to -0.7 per cent. Weak output growth in 2012 as well as depressed conditions in the labour market are expected to result in a small increase in private sector compensation in 2012. On the basis of the projected pick-up in economic activity and a small improvement in the unemployment rate, some increase in the pace of private sector wage growth is envisaged in 2013. Turning to overall economy-wide wage developments, annual growth in compensation per employee is expected to average 1.1 per cent in 2012

and 0.6 per cent in 2013. When combined with our forecasts for employment, this implies a marginal reduction in the overall pay bill of 0.2 per cent in 2012 followed growth of 0.8 per cent in 2013.

Inflation

The price level, according to the harmonised index of consumer prices (HICP), rose by 2.7 per cent on a cumulative basis, during the first eight months of this year. The main driver of this increase has been relatively high services price inflation. Normally, an increase in services price inflation would suggest an increase in domestic demand. However, the increase in services prices has been driven by large price increases in a few individual items. Air fares have increased by over 70 per cent since the start of the year and hotel prices are up by 19 per cent. These increases are at least partly seasonal, so the services price level is expected to fall over the remainder of the year as seasonal demand wanes. The second major contributor to inflation so far this year has been energy price inflation. The price level for the energy component was 5 per cent higher in May relative to January 2012. The rate fell back temporarily over June and July before rising again in August. The current outlook for oil prices, together with announced increases in the prices of gas and electricity for residential customers, suggests that energy prices will also be one of the main upward drivers of inflation over the remainder of 2012. Excluding services and energy, the inflation rates of the other components have been relatively flat so far this year.

Food prices have slightly increased this year. During the first half of the year, there were significant upward pressures on prices. The strength of sterling against the euro put pressure on food import prices and the standard VAT rate increase affected many processed food items. However, the small increase in the price of food suggests that retailers have largely absorbed these increased costs. There have been poor growing conditions in food producing regions recently which might translate into some price

Table 7: Inflation Measures – Annual Averages, Per Cent

Measure	HICP	HICP excluding Energy	Services ^a	Goods ^a	CPI
2008	3.1	2.6	3.4	2.9	4.1
2009	-1.7	-1.0	1.2	-4.1	-4.5
2010	-1.6	-2.7	-0.7	-2.4	-1.0
2011	1.1	0.0	0.8	1.5	2.6
2012 ⁱ	2.0	1.2	2.2	2.0	1.8
2013 ⁱ	1.3	1.3	1.7	1.0	1.0

^a Goods and services inflation refers to the HICP goods and services components.

increases over the remainder of the year, although the recent strength of the euro, if maintained, would help insulate Ireland from external price pressures. However, this outlook for the food sector is subject to uncertainty. Prices for alcohol and tobacco are likely to be up significantly in annual terms by the end of the year but this is mainly due to price increases following the budget last December. As a result, overall food prices including alcohol and tobacco may be up 1.3 per cent on average during 2012.

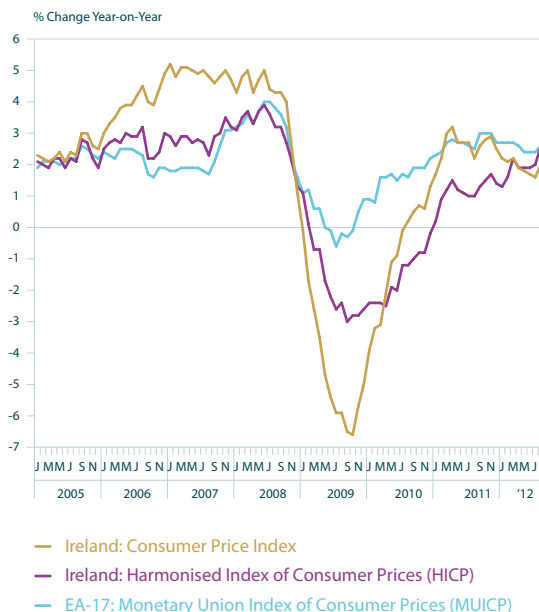
Energy price inflation, on an annual basis, averaged approximately 9.5 per cent in the first eight months of 2012, although this is partly due to price increases in the second half of last year. There was a slowdown in energy prices in June and July, as international oil prices fell. However, higher international oil prices and a weaker euro exchange rate versus the dollar meant that energy prices began to increase again in August. The futures for international oil prices and the exchange rate outlook mean that the forecast for energy prices for 2012 is now significantly higher relative to the last bulletin. The price increases announced for residential gas and electricity customers by a number of suppliers have also contributed to this renewed outlook.

Services prices rose by 3.3 per cent during the first eight months of this year. As mentioned, this was mainly due to prices for hotels and airfares although medical insurance also increased significantly this year. If these three items are excluded, overall services inflation is 1.0 per cent between January and August, which suggests that domestic inflationary pressures are still relatively constrained. Private rents are steady since the beginning of 2012.

Some downward pressure on rents was expected given the cut in the rent supplement in January. However, with increasing numbers now in rental accommodation, this increased demand may have offset any fall in rents caused by the rent supplement reduction. Turning to the outlook for services prices for the remainder of the year, recent data on retail sales and consumption suggest that domestic demand is still weak. Also, given the narrow nature of the observed price increases in the first half of the year, they are unlikely to be repeated over the remainder of 2012. Nonetheless, the strong outturn for services inflation so far this year means that its inflation rate is still expected to average 2.2 per cent for 2012.

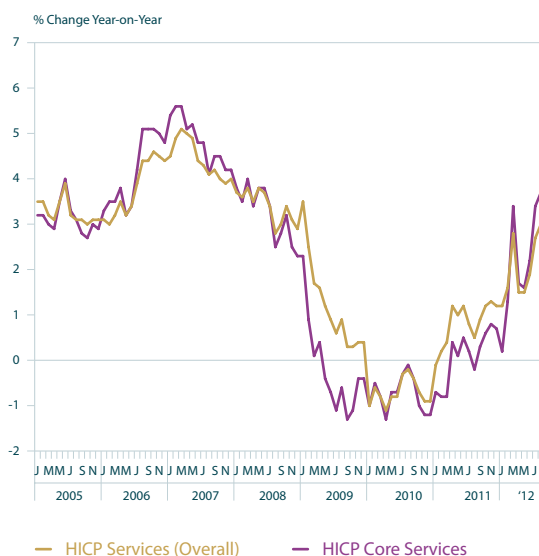
Turning to the consumer price index (CPI), Table 7 shows the annual average inflation rate for 2012 is projected to be lower than the HICP annual rate at about 1.8 per cent. The lower forecast for the CPI relative to the HICP reflects the impact of cuts in the ECB interest rate on mortgage interest repayments, which are included in the CPI but not the HICP. The impact of energy prices on the HICP forecast for 2012 is also evident from the table. Excluding energy, the HICP forecast would be 1.2 per cent for 2012 rather than 2.0 per cent. This again shows that the domestic component to inflation is relatively weak. The impact of energy prices on inflation is expected to be less important next year. Annual average HICP inflation is forecast to be 1.3 per cent next year while the HICP excluding energy is also expected to be 1.3 per cent. In addition, it is worth noting that there is significant upside risk to the projections, arising from possible indirect tax measures contained in the forthcoming Budget 2013.

Chart 4: Consumer Prices



Source: CSO.

Chart 5: Services Sector Inflation



Note: Core Market Services equals HICP services excluding telecommunications, alcohol and administered services.

Source: CSO.

Property Prices

Evidence from the CSO's Residential Property Price Index (RPPI) suggest that the year-on-year decline in property prices is moderating, although this was the case in 2010 only for price decreases to accelerate again in 2011. In year-on-year terms, property prices, according to the RPPI declined by 13.6 per cent in July, which compares to a decline of 17.4 per cent in January 2012. While month-on-month changes in the index need to be treated with caution due to the low level of transactions⁷, there appears to be some stabilisation in certain areas and categories, in particular for family houses in well-located urban regions. House prices in Dublin are slightly lower now than they were in January 2012, so there is perhaps some semblance of stabilisation rather than upward price movements, as reported by some commentators. More rapid declines in apartment prices continue to be the mode, however. In terms of a cumulative fall from peak, national property prices are 50.3 per cent below their peak, although considerable differences exist depending on location and type. Prices in Dublin have fallen further than the rest of the country – ostensibly because prices there increased more during the boom, with house prices down 55.6 per cent and apartment prices down 63.3 per cent; house prices outside of Dublin have fallen by a lesser 46 per cent. The latest CPI sub-index shows that the rental market was stable in August 2012 month-on-month but 1.9 per cent higher year-on-year. The Daft Rental Index also points to stabilisation, with the overall index remaining relatively unchanged in the year to July 2012.

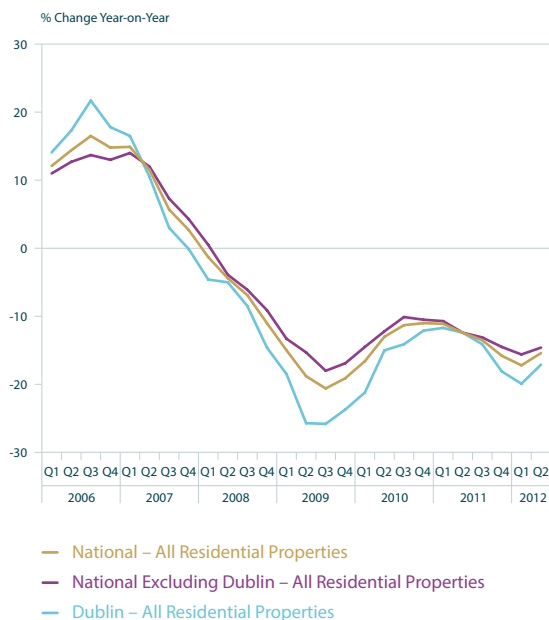
The forthcoming publication of the House Price Register, which will provide data on actual house prices rather than mortgage drawdowns or asking prices, will improve market signalling and transparency. While affordability has improved, uncertain employment prospects and no concrete evidence of a more accommodating mortgage market mean that sentiment in the housing market continues to err on the side of caution, with further price declines in prospect for some regions and sectors. The Irish Banking Federation reports

⁷ Low levels of transactions mean that a small number of property sales can have an undue impact on the headline figure which is prone to short-term volatility, exacerbated by difficulties in regional categorisations associated with the CSO's hedonic model.

that mortgage lending for the first half of 2012 was 14 per cent lower than the same period of 2011.

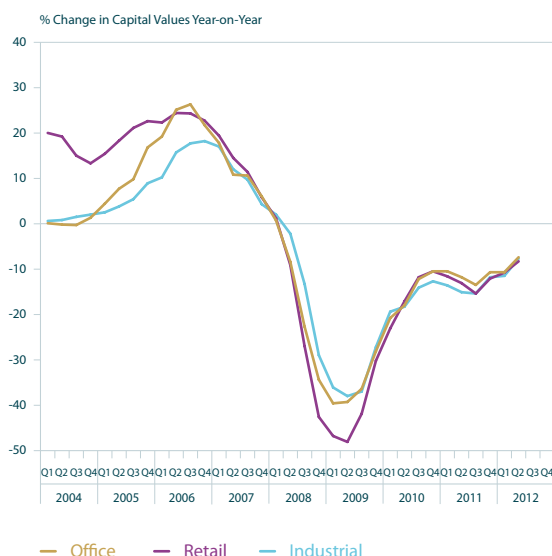
On the commercial front, the latest available indices indicate that capital values continued to fall in the second quarter of 2012, although at a moderate rate, with some semblance of stabilisation reported by some sectors in prime rents and yields. The Society of Chartered Surveyors/ Investment Property Databank's Commercial Property Index reported a 1.8 per cent quarter-on-quarter capital value decrease in Q2 2012. This is corroborated by the Jones Lang LaSalle index for Q2 2012, which recorded a slightly larger decrease of 2.3 per cent in capital values for the second quarter of 2012. This index also reported some weakness in rental values, reporting a quarterly decline of 1.4 per cent in the second quarter. Average capital values are now down 66 per cent from peak. Uncertainty in the Eurozone was reportedly weighing on market activity.

Chart 6: Residential Property Price Indices



Source: CSO.

Chart 7: SCS/IPD Irish Commercial Property Index



Source: SCS/IPD.

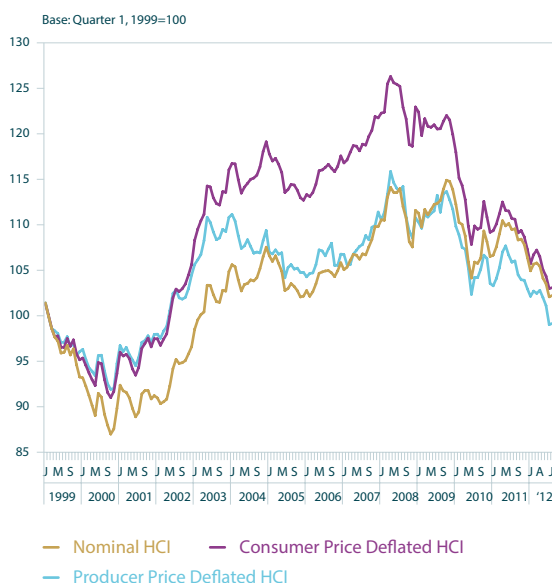
Competitiveness

Exchange Rate Developments

Weakness in the euro against both sterling and the dollar throughout much of 2011 and 2012 has been a boon to Irish exports in the face of increasingly lethargic growth in our main trading partners. In the year to July 2012, the euro depreciated by approximately 16 per cent and 14 per cent against the dollar and sterling, respectively. More recently, at the time of writing (September 2012), markets have reacted positively to efforts to stabilise and separate European sovereign and banking crises, resulting in a strengthening of the euro by 7.5 per cent and 3.3 per cent against the dollar and sterling, respectively. This recent strength is not reflected in the Harmonised Competitiveness Indicators (HCIs) which are available up to July 2012. They indicate that, barring a slight reversal in the first quarter of 2012, competitiveness continued to improve up to July 2012, with the nominal and real HCIs falling (an improvement in competitiveness) by 7.3 per cent and 7.8 per cent since June of 2011, respectively. While

most of this competitive improvement has come through favourable currency movements, the slightly lesser fall in the nominal HCI suggests that price increases in Ireland were slightly less than in our main trading partners.

Chart 8: Harmonised Competitiveness Indicators



Source: Central Bank of Ireland and ECB.

Productivity and Cost Competitiveness

Building on improvements in 2009 and 2010, National Account and employment data for 2011 indicated that there were further improvements in productivity in 2011, with productivity on a GDP basis increasing annually by 3.5 per cent. Productivity, however, measured on a GNP basis declined by 0.4 per cent, weakened by higher net factor income outflows related to profit repatriation of foreign multinationals operating in Ireland. As highlighted in previous Bulletins, there were likely two factors at play behind the higher GDP productivity measure: firstly, strong growth in the high-value added, mostly foreign-owned export orientated manufacturing sectors and, secondly, a sharp fall in activity in lower productivity sectors such as construction and services. (For a more nuanced

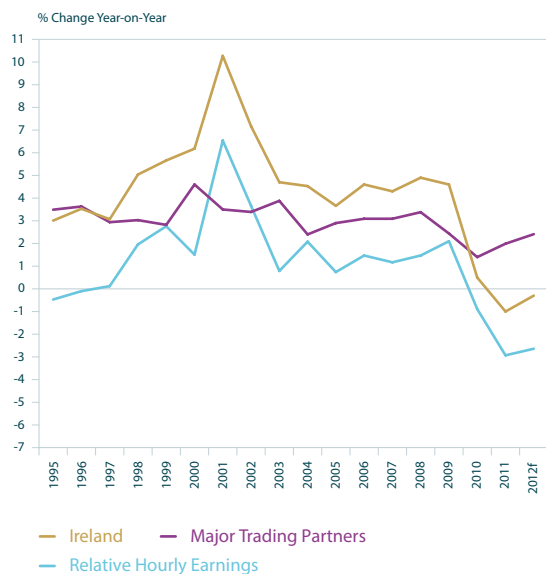
analysis of Ireland's cost competitiveness performance see Cost Competitiveness and Export Performance in the Irish Economy during the Recession, published in Bulletin Number 3 2012). For 2012 and 2013, these compositional effects are likely to play less of a role, with much of the structural change in the construction sector already occurring - it now accounts for a much smaller share of output (approximately 6 per cent). In light of the overall economic and labour market outlook set out above, average annual productivity growth of 1.6 per cent on a GDP basis is projected for this year and next.

In light of the more modest increase projected for productivity, and factoring in modest increases to compensation of employees, the large declines in unit labour costs experienced in previous years are forecast to moderate over the projection period. Following unit labour costs declines of 2.7 per cent (on a GDP basis) in 2011, further more moderate declines of 0.5 and 0.9 per cent are forecast for 2012 and 2013, respectively. Much of the improvement in unit labour costs is set to come increasingly from the productivity side rather than the compensation side, as many businesses have completed their rounds of wage reductions and, indeed, the forecast includes modest compensation increases this year and next. According to European Commission projections, labour cost competitiveness in Ireland relative to the euro area is set to improve this year and next.

In terms of the other competitiveness indicators, the CSO's experimental Services Producer Price Index points to some upward pressure on business-to-business services prices in Ireland, with prices up 1.9 per cent year-on-year in the second quarter of 2012 and up 0.8 per cent compared to the previous quarter. Much of this increase, however, can be attributed to significant increases in fuel prices and currency fluctuations; the most significant increases were recorded in the freight and removal by road sub-category (up 10.9 per cent year-on-year), while there

were decreases in employment and human resource services (down 4 per cent). On-going work of the National Competitiveness Council (NCC) highlights areas of concern in regard to our competitiveness. The 2012 Competitiveness Scorecard benchmarks our international performance on a broad range of indicators and highlights a number of areas that require further structural reform. In addition to structural commitments under the EU/IMF programme, the NCC stress the need for improvement in: investment in next generation broadband, reduced dependency on imported energy and increased investment in the renewables sector, more tax credits for R&D, continued extension of Ireland's tax treaty network and a restoration of bank lending. They also emphasise the importance of competitiveness improvements in sheltered sectors such as healthcare and legal services where these costs compare unfavourably with international competitors.

Chart 9: Hourly Earnings in Manufacturing (in Local Currency)



Source: Central Bank of Ireland calculations.

Chart 10: Irish Unit Wage Costs Relative to Main Trading Partners (in Common Currency)



Note: The series in the chart are influenced by compositional effects. For a more detailed discussion, see Box A: Compositional Effects in Recent Trends in Irish Unit Labour Costs, Quarterly Bulletin 1 2011.

Source: Central Bank of Ireland, European Central Bank and AMECO.

The Public Finances

2011 General Government Outturn

Following the release of full National Income and Expenditure data for 2011, the estimated general government deficit for last year has been revised down by 0.4 per cent to 12.7 per cent of GDP (from 30.9 per cent in 2010). As noted in the previous Quarterly Bulletin, this figure reflects Eurostat's decision to classify €5.8 billion of the July 2011 recapitalisation payments as a deficit increasing capital transfer. The underlying deficit – which excludes the costs of supporting the banking sector and is the relevant measure for the EU-IMF Financial Assistance Programme – is now estimated at 9.0 per cent of GDP in 2011 (from 10.8 per cent in 2010), well below the EDP target of 10.6 per cent.

Table 8: Exchequer returns, End-August 2012

	2011 Outturn €m	2011 End-August €m	2012 End-August €m	End-June % Annual Change
Current Expenditure				
– Voted ⁹	41,419	27,251	28,021	
– Non-voted ¹⁰	6,606	3,684	5,915	
Total	48,025	30,935	33,936	9.7
Current Revenue				
– Tax revenue	34,027	20,502	20,076	
– Non-tax revenue ¹¹	2,774	1,608	2,403	
Total	36,801	22,110	24,478	10.7
Current Budget Balance	-11,224	-8,824	-9,458	
Capital Budget Balance	-13,693	-11,607	-1,889	
Exchequer Balance	-24,917	-20,432	-11,347	
General Government Balance (% of GDP)	-12.7			
Source and Application of Funds				
– Total Borrowing/Repayments	-27,046	-17,638	-21,473	
– Promissory Note Issued to IBRC ¹²		0	3,060	
– Total Increase in Exchequer Deposits	2,129	2,793	7,066	
Exchequer Balance	-24,917	-20,432	-11,347	

⁹ Government current expenditure voted on by the Dail in the areas of Social Welfare, Health, etc.

¹⁰ Includes items such as debt servicing and EU Budget contribution.

¹¹ Includes items such as income from Eligible Institutions Guarantee, Central Bank surplus income, National Lottery surplus, interest and dividends.

¹² The promissory note transaction is not included in non-voted expenditure as no cash was issued arising from the transaction. The bond issued is included in total borrowing / repayments.

Exchequer Returns

The latest data reveal an Exchequer deficit of €11.3 billion in the first eight months of the year, down from €20.4 billion in the same period of 2011 (see Table 8). While both tax and non-tax revenues have recorded annual increases, the €9.1 billion improvement in the balance primarily reflects developments on the expenditure side. The July 2011 bank recapitalisation payments, which saw an outlay of €5.3 billion, have not been repeated, while the decision to settle the March 2012 promissory note payment with a Government bond has generated further cash saving of €3.1 billion.⁸ A substantial improvement in the balance was fully anticipated this year; the Department of Finance projected a 2012 deficit

of €18.7 billion in April's Stability Programme Update (down from €24.9 billion in 2011). However, this figure included the promissory note payment as its Exchequer accounting treatment had not been determined at the time.

Taking a closer look at the revenue side, tax receipts amounted to €22.1 billion in the period January to August, annual growth of 7.7 per cent. The strength of this increase partly reflects two temporary elements which have boosted inflows - the delayed receipt of corporation tax payments in January and a decision by the Revenue Commissioners to reclassify a portion of PRSI receipts as income tax. Even adjusting for these factors, however,

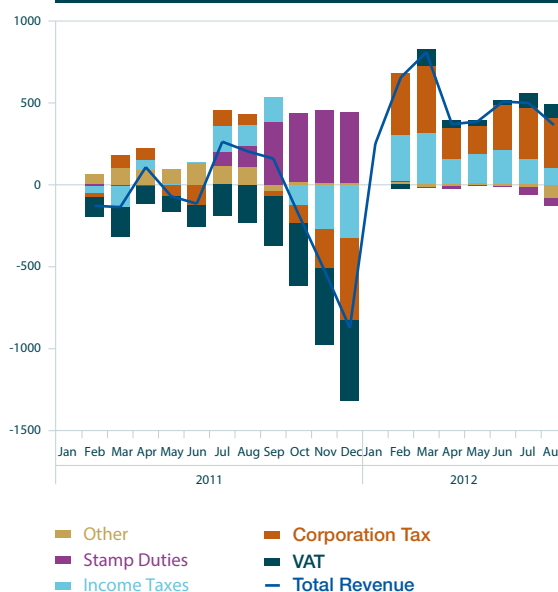
⁸ Due to the statutory payments basis in the finance accounts and the exceptional nature of the transaction, the Promissory Note payment is not included as non-voted capital expenditure in the Exchequer Statement. For comparability, primary exchequer balance targets and outcomes set by the Troika include this €3.06 billion payment.

tax revenue has still increased by a robust 5.2 per cent and is 1.7 per cent above the revised target set by the Department of Finance in April (see Chart 11). This reflects over-performance in three of the 'big four' tax heads. Income tax, the biggest of the tax components, has increased by close to 10 per cent from last year (adjusting for the impact of the PRSI re-classification), and is 1.1 per cent ahead of target, while corporation tax and VAT are 17 and 1.2 per cent ahead of their revised targets respectively. While performance in the year to date has been very favourable, developments in the fourth quarter will play a big role in determining the outcome for the year as a whole, given the high level of inflows profiled (the fourth quarter is particularly important for self-employed income tax returns and corporation tax collection). Non-tax revenues have also performed strongly in the first eight months of the year. This partly reflects timing effects related to the earlier receipt of bank guarantee fees in 2012. The increase of almost €800 million has also been driven by higher Central Bank surplus income and the receipt of interest on contingent capital notes. The final revenue component – capital receipts – is some €220 million lower than in the same period in 2011, having benefited from the sale of part of the State's shareholding in Bank of Ireland last year.

On the spending side, net voted expenditure was €29.6 billion at end-June, €244 million higher year-on-year and 1.1 per cent ahead of its revised profile. As in the case of revenues, special factors distort the headline picture somewhat; a shortfall in PRSI receipts is partly to blame for the weaker than expected net figure and this in turn has been partly offset by earlier than expected HSE receipts. Excluding these factors net voted expenditure is still €200 million above target, however, primarily reflecting overruns in the Social Protection

and Health vote groups. In response to the latter, the HSE introduced a range of additional cost reduction measures, amounting to €130 million, in late August. Non-voted expenditure, by comparison, is substantially weaker than it was in the same period of 2011, and has driven the decline in the overall deficit. Debt servicing costs have increased by around €2.2 billion (€1.1 billion when an earlier payment to the sinking fund and use of the Capital Services Redemption Account for debt servicing purposes in 2011 are taken into account), but bank support payments have declined sharply and the decision to finance this year's promissory note with a Government bond has produced a further cash saving. Combined, these factors have resulted in an €8.9 billion reduction in non-voted capital expenditure, year-on-year.

Chart 11: Cumulative Exchequer Revenue Performance Relative to Target, 2012



Note: 'Other' tax items here comprise of Capital Acquisitions Tax, Capital Gains Tax, excise duties, customs and a minor balancing item for unallocated tax revenues.

Source: Central Bank of Ireland calculations and Department of Finance profiles.

Exchequer Financing

The Exchequer Returns show that the deficit was financed by net government borrowing of €21.5 billion in the first eight months of the year. When the €3.06 billion promissory note bond is taken into account, this resulted in a €7.1 billion increase in Exchequer cash balances over the period (see Table 8). The conclusion of Programme reviews by the European Commission and the IMF in September paved the way for the disbursement of an additional €2.6 billion of programme funds (€1.0 billion from the EU, €0.9 billion from the IMF, and €0.7 billion from Ireland's other EU bilateral partners). Once this tranche has been fully drawn down, a total of €54.8 billion will have been disbursed, representing 81 per cent of the total external financing of €67.5 billion.

Following an initial treasury bill issuance of €500 million in early July, the NTMA raised €4.2 billion in new money in its first long term bond issuance since September 2010. This was followed up by the sale of €1 billion of new amortising bonds to the pension industry in August and a further €500 million in treasury bill issuance in mid-September. As a result of these issues – and bond switches which took place in January and July – a substantial portion of the January 2014 'funding cliff' has now been financed.

As noted in the detailed Chapter on the EU-IMF Financial Assistance Programme later in this Bulletin, the quantitative fiscal targets underpinning the Programme were fully met in the first half of the year.

An Timpeallacht Gheilleagrach

I bhfianaise gur cloíodh go dlúth le spriocanna Chlár AE/CAI agus i bhfianaise tionscnamh beartaithe agus tionscnamh iarbhir ar leibhéal an limistéir euro, chonacthas laghdú suntasach ar thorthaí bhannaí na hÉireann le míonna beaga anuas, fad atá rochtain á fáil athuair ag Rialtas na hÉireann ar mhaoiniú margaidh, bíodh gur rochtain thriaileach go fóill í. Tá baint mhór ag an ráiteas a eisíodh i ndiaidh Chruinniú Mullaigh AE a tharla ag deireadh mhí an Mheithimh leis an bhfeabhas suntasach a tháinig ar sheintimint an mhargaidh i leith na hÉireann thar an samhradh, ó tharla gur aithníodh sa ráiteas sin go bhfuil sé rithabhachtach an nasc dochrach idir bainc agus Stáit a bhriseadh agus, go háirithe, gur gá déileáil le fiachas baincéireachta na hÉireann. Mar ábhar dóchais, tá feabhas mór tagtha ó mhí Lúnasa i leith ar sheintimint an mhargaidh ar leibhéal an limistéir euro chomh maith, agus é ag tairbhiú de na comharthaí a cuireadh amach agus de na bearta a ghlac an BCE chun creat nua a chur i bhfeidhm maidir le hidirghabháil a dhéanamh sna margaí bannaí. Cé go mbeidh impleachtaí dearfacha ag na forbairtí sin ar mhaoiniú rialtas agus banc, tá rioscaí ann go fóill ar an leibhéal Eorpach agus ar an leibhéal intíre araon. In Éirinn, tá sé rithabhachtach go gcloífear i gcónaí le spriocanna an Chláir fad a bheidh baint mhór ag an dul chun cinn, anseo agus in áiteanna eile, maidir le fadhbanna fiachais cheannasaigh agus fadhbanna baincéireachta sa limistéar euro leis an gcaoi ina n-éabhlóidh an timpeallacht i gcoitinne.

Bíonn rioscaí ag gabháil le forbairtí eacnamaíocha áfach. Le míonna beaga anuas, tá comharthaí tagtha chun cinn go bhfuil moilliú níos suntasaí i gceist ar an leibhéal níos leithne idirnáisiúnta, de réir mar a bhraitear tionchar maolúcháin na strus sin sna margaí airgeadais. Toisc gur geilleagar beag, oscailte é geilleagar na hÉireann agus toisc go bhfuil sé spleách ar fhás onnmhairí chun laigeacht eacnamaíoch intíre a fhritháireamh, bíonn sé níos soghonta i leith lagú na timpeallachta seachtraí eacnamaíche. I ndiaidh fhás OTI arb ionann agus 1.4 faoin gcéad in 2011, tugtar le fios leis na sonraí is déanaí go bhfuil moilliú tagtha ar ghníomhaíocht, sa mhéid gur tháinig fás 0.5 faoin gcéad ar OTI, bliain ar bhliain, sa chéad leath den bhliain seo. Níor tháinig athrú ar bith ar an bpictiúr leathan atá taobh thiar de na sonraí seo. Leanann onnmhairí de bheith ag fás, bíodh go bhfuil an fás sin ag moilliú, fad atá an t-éileamh intíre fós lag. Níor tháinig cobhsú fós ar fhostaíocht, rud a léiríonn ráta neamhthoirtéiseach an fháis, agus ní dócha go bhfeicfear méadú ar fhostaíocht go dtí an bhliain seo chugainn.

Tugann na forbairtí seo le tuiscint gur gá athbhreithniú beag anuas de thuairim is 0.2 faoin gcéad a dhéanamh ar réamh-mheastacháin OTI i gcomparáid leis na cinn a foilsíodh san Fheasachán deireanach. Meastar anois go maolódh fás OTI go dtí 0.5 faoin gcéad in 2012 agus go dtiocfaidh laghdú 0.4 faoin gcéad ar OTN. Ina dhiaidh sin, meastar go dtiocfaidh méadú ar fhás in 2013 go dtí tuairim is 1.7 faoin gcéad i dtéarmaí OTI agus go dtí tuairim is 0.7 faoin gcéad i dtéarmaí OTN, bunaithe ar théarnamh éigin ar an éileamh intíre an bhliain seo chugainn i dteannta le cobhsú de réir a chéile ar an ngeilleagar intíre.

D'ainneoin spadántacht an gheilleagair intíre, tá dul chun cinn maith fós á dhéanamh maidir leis na príomh-shaincheistanna beartais. Tá forbairtí fioscacha ag gluaiseacht sa treo ceart, a bheag nó a mhór, cé go bhfuil an fás níos laige ná mar a bhíodhas ag súil leis, agus is dócha go mbeidh toradh na bliana seo faoi bhun uasteorainn an Chláir. Cé gur gá cinntí deacra a dhéanamh, ní luifeadh sé le réasún na

tiomantais atá ann cheana faoin gClár a mhaolú. Ní raibh éifeacht dhíobhálach an chraptha fhioscaigh níos measa ná mar a bhíothas ag súil leis. Tá an tearcghnóthachtáil in OTI na hÉireann ón uair a thosaigh an Clár inchomórtais a bheag nó a mhór leis an scéal sa chuid eile de limistéar an euro agus is go háirithe mar gheall ar an timpeallacht sheachtrach níos laige a tharla sé seo. Ar a laghad ar bith, tá sé fíor-riachtanach go leanfar de bheith ag cloí leis na spriocanna easnaimh atá leagtha amach sa Chlár. Toisc gur aimsigh Éire na spriocanna seo, bhí sí in ann dul chun cinn réasúnta maith a dhéanamh chun dea-chlú na tíre maidir le ceapadh beartais a athbhunú agus chuidigh sé seo go mór, ar a sheal, chun torthaí bannaí na hÉireann a íslíú agus chuir sé ar chumas na hÉireann freisin cáiliú le haghaidh athbhreithnithe a fiachais bhaincéireachta, d'fhonn inbhuanaitheacht a fheabhsú. Déanta na fírinne, gan scála foriomlán an cheartaithe fhioscaigh a mhéadú, d'fhéadfai a rá go mba cheart an coigeartú a dhéanamh níos tapúla. Déanfadh sé seo an tréimhse neamhchinnteachta atá ann le fada cheana, rud a bhí dona go leor ann féin agus a chuir moill, gan amhras, ar infheistíocht agus ar phleananna caiteachais eile, a ghiorrú. Má chuirtear an geilleagar ar ais chomh tapa agus is féidir ar bhonn a thugann muinín do chách, d'fhéadfadh sé seo cuidiú agus tacú le hathshlánú níos tapúla maidir le poist agus táirgeacht.

Tá dul chun cinn á dhéanamh i gcónaí in earnáil na baincéireachta sa mhéid is go bhfuil athstruchtúrú na hearnála ar siúl ar bhonn leantach. Tá taiscí ag sreabhadh isteach i gcónaí sna bainc intíre agus tá siad seo ag cuidiú chun an spleáchas ar mhaoiniú ón mBanc Ceannais a laghdú de réir a chéile, cé go bhfuil an spleáchas seo fós ag leibhéal ard. Leanann na bainc de bheith ag coigeartú a gclár comhardaithe trí dhíghiaráil agus tá tuairim is dhá thrian de sprioc PLAR do dheireadh 2013 bainte amach anois don chóras tríd is tríd. Chun iarmhairtí neamhbheartaithe díghiarála maidir leis an soláthar creidmheasa nó le praghsáil taiscí a sheachaint, táthar tar éis an creatlach a mhionathrú agus as seo amach cuirfidh sé suíomh leachtachta foriomlán na mbanc san áireamh freisin, maraon le maoiniú na gcroí-oibríochtaí. Tá dúshlán maoinithe ann i gcónaí, áfach, agus i dteannta le brúnna ó

cháilíocht sócmhainní agus ó thorthaí, tá siad seo ag cur brú ar bhrabúsacht. D'fhreagair na bainc do na dúshlán seo trí ghníomhú chun oibríochtaí a chuichóiriú agus chun costais a laghdú agus chun a samhlaigh gnó i gcoitinne a choigeartú. Fad is atá na bainc ag déileáil le hoidhreacht an bhorrtha, tá sé tábhachtach a chinntiú go gcuirtear sreabhadh leordhóthanach creidmheasa ar fáil do theaghlaigh agus don earnáil FBM.

Tá sé réamhriachtanach cor iomaíoch an gheilleagair a fheabhsú má táthar chun ár n-athléimneacht in aghaidh suaití a mhéadú agus acmhainneacht fáis a spreagadh. Is fíor é seo go háirithe i ndálaí inar oibrigh fás onnmhairí mar fhachtóir shuntasach mhaolaithe i rith an choir chun donais. Cé go bhfuil cuid den iomaíochas a cailleadh i rith an bhorrtha athghafa ag Éirinn, déanann na tomhais chaighdeánacha idirnáisiúnta a úsáidtear chun iomaíochas agus fás táirgiúlachta a mheas áibhéil maidir le méid an fheabhais atá tagtha ar an scéal. Mar a dúradh cheana, toisc go raibh bogadh earnálach le blianta beaga anuas amach ó na hearnálacha ina raibh an táirgiúlacht íseal, rinneadh áibhéil maidir leis an bhfeabhas a taifeadadh. Ó tharla sin amhlaidh, ní mó na méaduithe san iomaíochas atá gnóthaithe a threisiú a thuilleadh. Bealach tábhachtach amháin chun é seo a dhéanamh ná chun dul ar aghaidh le hathchóirithe na hearnála poiblí chun an leibhéal is airde is féidir de sheirbhísí poiblí a sheachadadh ó na hacmhainní laghdaithe atá ar fáil ón gcaiteachas. Tríd is tríd, tá pá ard i gcónaí san earnáil phoiblí agus san earnáil phríobháideach araon, rud a chuireann le costais agus le praghsanna sa gheilleagar agus, gan amhras, bíonn drogall ar ghnólaigh onnmhairithe dá bharr a ngnó a leathnú nó tabhairt faoi thionscadail infheistíochta. Bíodh is go dtugtar aitheantas do na deacrachtaí atá ann, má táthar chun aghaidh a thabhairt ar chuid de na saincheisteanna seo, dá n-ísleofaí bonn na gcostas, idir chostais phoiblí agus phríobháideacha, cuideodh sé seo ar bhealach suntasach chun iomaíochas agus táirgiúlacht a fheabhsú go bunúsach. Léireodh sé seo gur féidir leis an ngeilleagar é féin a chur in oiriúint do chúinsí athraithe agus go mbeadh sé an-tairbheach don phróiseas téarnaimh.

Financing Developments in the Irish Economy

Overview

Over the third quarter of 2012, tensions in the sovereign debt markets appeared to ease for most peripheral euro area countries. By mid-September, Irish government 10-year bond yields had fallen to their lowest level since August 2010. The yield spreads relative to German Bunds for Greece, Portugal and Spain had also declined between Q2 2012 and early September. These trends followed announcements by the European Council and the ECB of programmes designed to further support countries adversely impacted by the financial and sovereign debt crises. On 29 June, the European Council announced that the ESM would be able to directly recapitalise banks and would “examine the situation of the Irish financial sector”. In addition, on 6 September the ECB announced that they would carry out ‘Outright Bond Transactions’, whereby they would buy euro area sovereign bonds on the secondary debt markets, subject to the strict conditionality of an EFSF/ESM programme. Domestically, the NTMA continued to progress Ireland’s return to the sovereign debt market. During August 2012, the NTMA issued a €1 billion amortising bond, bringing the total raised in recent months to €5.2 billion. A further Treasury bill auction was also announced by the NTMA during early-September.

Household debt continued to decline during Q1 2012 to reach €188.5 billion or €42,030 per capita. This marked a decline of 1.6 per cent over the quarter. Overall, household liabilities have decreased by 11.8 per cent, or €25.2 billion between Q4 2008 and Q1 2012. Money and banking statistics reveal household loans from credit institutions have continued to decline further in recent months, falling at an annual rate of 3.6 per cent at end-July 2012. In addition, household borrowing costs continued to fall. The weighted average interest rate on outstanding mortgage loans with an original maturity over five years stood at 2.86 per cent in June 2012, representing a 56 basis points fall since September 2011. Despite the decline in household indebtedness, household net worth (total assets minus total liabilities) continued to fall during Q1 2012. This trend reflected the continued decline in housing assets over the quarter. At Q1 household net worth stood at €447.9 billion or €99,875 per capita, representing a quarterly decline of 1.4 per cent.

Non-financial corporation (NFC) debt declined by €0.8 billion during Q1 2012, falling to €352 billion, or 221 per cent of GDP, after

recording its highest ever level in Q4 2011. NFC debt had been on an upward trend during Q3 and Q4 2011, largely reflecting the increasing debt levels of multi-national corporations operating in Ireland. Money and banking statistics reveal that credit institutions lending to NFCs declined by an annual rate of 3.4 per cent at end-July 2012. While multinationals may finance their activities through issuing bonds or borrowing from affiliated companies or non-residents, indigenous NFCs (particularly small or medium sized companies) are more reliant on borrowing from Irish credit institutions. Interest rates on outstanding loans to NFCs, issued by Irish resident credit institutions, fell during July 2012 for the ninth consecutive month. The weighted average interest rate on all outstanding NFC loans was 3.26 per cent at end-July 2012, declining 47 basis points since end-December 2011. Interest rates on new business loans up to a value of €1m, generally regarded as a good proxy for SME lending, have been falling since end-2011; however at 4.61 per cent, they are 49 basis points above the euro area levels.

Credit institutions in Ireland reduced their recourse to Eurosystem refinancing operations by €5.4 billion over the three months ending July 2012. In total, borrowing by resident credit institutions from the Eurosystem reached €84.4 billion at end-July 2012. The decline in recourse to the ECB was principally derived from a reduction in Eurosystem borrowing by Irish-owned credit institutions totalling €5.3 billion and other credit institutions resident in the State also reduced their recourse to Eurosystem refinancing operations by approximately €100 million during the same period. Eurosystem refinancing operations continue to operate on a full allotment basis. A reduction of 25 basis points announced following the July meeting of the Governing Council left the ECB's main refinancing operations (MRO) rate currently standing at 0.75 per cent. In terms of longer-term Eurosystem financing, the share of longer-term refinancing operations (LTROs) in total Eurosystem refinancing operations undertaken by the Central Bank of Ireland was 85 per cent at end-July 2012, compared with a corresponding figure of 75 per cent at end-January 2012.

During the first seven months of 2012, Irish resident credit institutions recorded a net inflow of private-sector deposits from both domestic and private sector counterparties. Irish private-sector deposits increased by €2.9 billion from the end-2011 to the end-July 2012, reducing the annual rate of change at end-July to minus 0.8 per cent, representing the lowest rate of contraction since July 2010. Deposits from Irish households and NFCs increased by €231 million in the seven months up to end-July 2012, contrasting with a corresponding decline of over €5 billion during the same period in 2011.

Irish resident investment funds (IFs) experienced significant growth for the third successive quarter during the second quarter of 2012. The growth in investment funds was predominately driven by a recovery in both asset valuations and the sale of new shares/units. The overall value of the Irish investment fund industry, measured by total shares/units in issue, amounted to €855.1 billion at end-June 2012, an increase of almost €820 billion at the

end of the first quarter of 2012. In contrast to the strong growth in investment funds, total assets for financial vehicle corporations (FVCs) resident in Ireland continued to decline during the second quarter of 2012, falling to €469.2 billion from €480.7 billion at the end of the first quarter. Irish resident FVCs continued to follow the euro area trend in terms of net outflows during the second quarter of 2012. Irish resident FVCs reported outflows of €15.7 billion which contributed to total euro area outflows of €82.8 billion.

Monetary Financial Institutions

Credit Institutions' Funding

The three months up to end-July 2012 saw a reduction in recourse by credit institutions in Ireland to Eurosystem refinancing operations of €5.4 billion. Total borrowing by resident credit institutions from the Eurosystem amounted to €84.4 billion at end-July. Underlying these aggregate developments was a reduction in Eurosystem borrowing by the Irish-owned credit institutions of €5.3 billion over the three-month period, whereas other credit institutions resident in the State reduced their recourse to refinancing operations by approximately €100 million. Eurosystem refinancing operations continue to be settled on a full allotment basis, with the main refinancing operations rate currently standing at 0.75 per cent following the Governing Council's decision to reduce the main policy rates by 25 basis points at their meeting in July. The share of longer-term refinancing operations (LTROs) in total Eurosystem refinancing operations undertaken by the Central Bank of Ireland was 85 per cent at end-July 2012, slightly lower than previous months.

The downward trend in the outstanding amount of debt securities issued by the Irish banking sector that was witnessed throughout 2011 and early 2012 has continued, with the cumulative value of outstanding debt securities falling to €92.1 billion by end-Q2 2012 (compared with €97.1 billion at end-Q1). This was driven by net redemptions of €5 billion over the course of Q2 2012, with redemptions of long-term securities accounting for some 59 per cent of the total. However, the rate of this activity does appear to

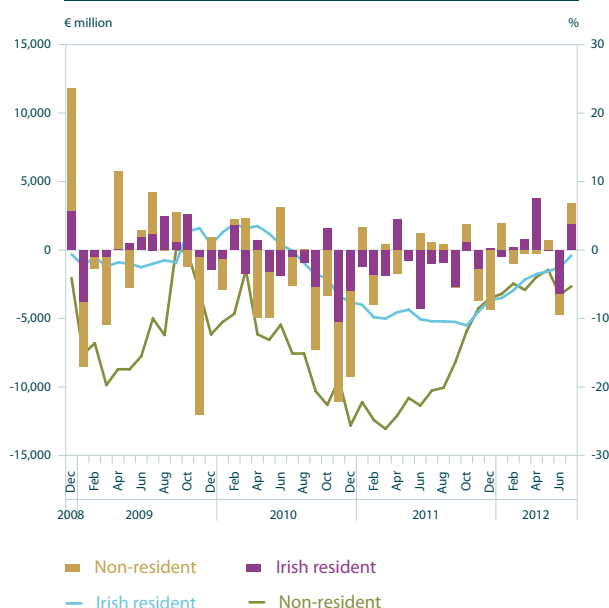
have slowed somewhat when compared with net redemptions of €15.9 billion and €5.1 billion, respectively, in Q1 2012 and Q4 2011.

By end-Q2 2012, listed equity for the Irish banking sector had an outstanding value of more than €15.3 billion; this represents a fall of 2 per cent since end-Q1 2012. However, although the outstanding value of this listed equity did fall back slightly in April and May 2012, it has still risen by 62 per cent over the past 12 months, reflecting a substantial increase in the number of shares issued on foot of the bank recapitalisation programme in 2011.

The first seven months of 2012 have seen net inflows of private-sector deposits into Irish resident credit institutions, from both domestic and foreign private-sector counterparties. Irish private-sector deposits rose by €2.9 billion in the months from end-2011 to July 2012, bringing the annual rate of change at end-July to minus 0.8 per cent, the lowest rate of contraction since July 2010. Deposits from Irish households and non-financial corporations (NFCs) increased by €231 million in the seven months up to end-July 2012, compared with a decline of over €5 billion over the same period in 2011.

Irish private-sector overnight deposits declined at an average annual rate of 7.4 per cent in the three months ending July 2012. The easing of the pace of contraction in overnight deposits in recent months is mostly due to an increase in deposits from non-bank, or 'other' financial intermediaries (OFIs) during July. While recent developments in the overnight deposit category are in contrast to those in 2011, the trend of net inflows into term savings deposit categories present for much of the past year has continued, particularly for longer-term deposits. Term deposits with an agreed maturity of up to two years from the Irish private sector recorded a net inflow of €635 million over the first seven months of 2012, driven by a rise of household deposits in this category of €1.8 billion over the period. Term deposits with an agreed maturity of over two years have also increased in recent months, particularly those deposits in this category from OFIs. These increased markedly during June due mainly to developments in deposits from entities related to resident credit institutions. The compositional shift in private-sector deposit holdings over the past year, especially for households, appears to reflect developments in the relative pricing of retail interest rates for demand, redeemable at notice and term deposit categories.

Chart 1: Monthly Net Flows (LHS) and Annual Rates of Change (RHS) of Private-Sector Deposits in Irish Resident Credit Institutions



Source: Money and Banking Statistics, Central Bank of Ireland.

Deposits held by the non-resident private sector in credit institutions in Ireland have increased in recent months, being €1.2 billion higher at end-July 2012 than at end-2011. Based on the average for the three months ending July 2012, deposits from the non-resident private sector fell by an annual rate of 4.9 per cent. This compares with an average annual decline of 21.6 per cent for the same three-month period to July 2011. Net outflows of deposits held by the non-euro area private sector so far in 2012 have been more than offset by net inflows of deposits from counterparties outside the euro area.

The total external liabilities (i.e. debt securities and deposits held by foreign investors) of Irish resident credit institutions increased by 1 per cent (or €2.9 billion) to €358 billion during Q2 2012 (see Table 1). Liabilities to other euro area countries increased by €4.6 billion. Liabilities to the UK fell by a further €4.2 billion, whilst

Table 1: Geographic Profile of Credit Institutions' External Liabilities for Selected Countries, Q2 2012

€ million

	Q1 2012 – Q2 2012 change	Outstanding Amount
Total	2,918	357,765
of which:		
Italy	2,391	12,144
Belgium	-1,863	29,560
US	320	17,960
UK	-4,212	135,693
Germany	-3,179	42,906
France	6,989	37,077

Source: Table A.19.2 (Statistical Appendix), Central Bank of Ireland.

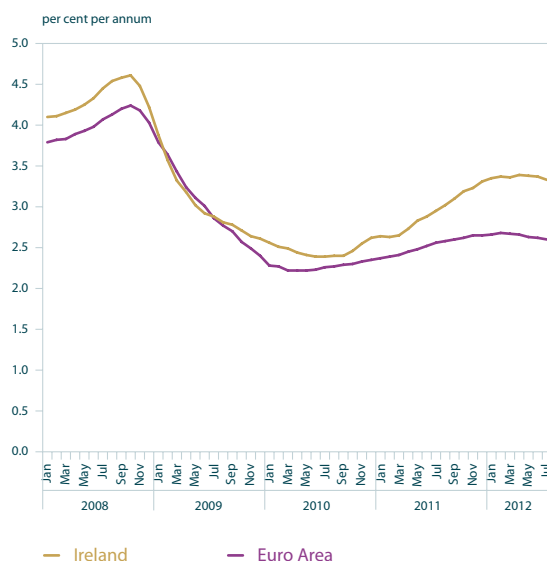
Note: These locational banking statistics are based on the international liabilities of bank offices resident in Ireland.

liabilities to non-EU industrialised countries increased by €1 billion.

Deposit developments have resulted in a continuing, albeit slower decline in the Irish contribution to euro area M1 and M2 on an annual basis, despite the positive flows of recent months. Currency in circulation increased at an annual rate of 5.9 per cent, based on the average for the three months ending July 2012. However, this was more than offset by the annual decline in overnight deposits outlined above, resulting in an annual rate of decline in the Irish contribution to euro area M1 of 4.4 per cent, based on the average for the three months ending July 2012. The developments in term deposits with an agreed maturity up to two years have contributed to a significant easing of the pace of decline in the Irish M2-M1 contribution in recent months. The average annual rate of decline was 4.9 per cent in the three months ending July 2012, compared with an average annual fall of 19.2 per cent for the same period in 2011. The overall decline in the Irish M2 contribution was 4.7 per cent on an annual basis over the three months to end-July 2012. The Irish contribution to euro area M3 fell at an annual rate of 8.1 per cent, based on the average annual rate for the same period. In contrast, during this three-month period, the equivalent measure for the euro area M3 as a whole was an annual increase of 3.4 per cent.

Although the Irish-owned credit institutions continue to source their funding largely outside of the interbank markets, it is worth noting that the cost of borrowing in these markets fell further in recent months. At end-July 2012, the one-month, three-month and twelve-month EURIBOR rates were 87, 97 and 100 basis points lower, respectively, than at end-December 2011. Meanwhile, retail interest rates on deposits in Ireland remain high relative to the euro area average, but have been stable during 2012 following consistent increases from mid-2010 to late 2011. At end-December 2010, the weighted average interest rate reported by Irish resident credit institutions on household and NFC term deposits was 2.62 per cent, compared with an average rate of 2.35 per cent reported by all euro area credit institutions. Since then, Irish resident credit institutions have reported an increase of 74 basis points in this rate, to 3.33 per cent at end-July 2012, while the euro area rate at end-July was 2.6 per cent. So far in 2012, credit institutions in Ireland have been paying on average 72 basis points per annum more on household and NFC term deposits than the euro area average.

Chart 2: Interest Rates on Deposits with Agreed Maturity from Households and NFCs (Outstanding Amounts)



Sources: Central Bank of Ireland and the ECB.

Aggregate Credit Developments

Credit advanced to the Irish Government by resident credit institutions in terms of loans has fallen slightly in recent months, while holdings of government securities have increased.

This largely reflects the recent settling of a promissory note payment via a government bond, as well as Irish institutions' participation in the most recent bond and treasury bill auctions by the NTMA. The outstanding amount of loans to government was €28 billion at end-July 2012, compared with €29.7 billion at end-2011. Holdings of Irish government securities increased to €18.5 billion at end-July

2012, compared with €13 billion at end-2011, bringing the annual increase in holdings of Irish government securities to 61.9 per cent at end-July.

The amount of outstanding loans to the Irish private sector on the balance sheets of Irish resident credit institutions fell by an annual rate of 4.9 per cent, based on the average for the three months ending July 2012. The growth in holdings of securities issued by the private sector, which had been the main driver of growth in private-sector credit in recent years, moderated considerably during 2011, and turned negative in December 2011. During 2010, the growth in credit institutions' holdings of private-sector securities was largely related to holdings of debt securities issued by OFIs, which includes special-purpose vehicles (SPVs) such as NAMA. As the process of transferring loans to NAMA in return for bonds has ended, holdings of OFI debt securities are now falling on an annual basis. Credit institutions' holdings of Irish private-sector securities decreased at an annual rate of 9.3 per cent, based on the average for the three months ending July 2012. This compares with an average increase of 29.3 per cent for the same three-month period in 2011.

Credit advanced to non-residents by credit institutions in Ireland continued to fall sharply in recent months, but the pace of decline moderated in the three months to July. Total credit to all non-resident sectors by resident credit institutions declined at an annual rate of 14.6 per cent, based on the average for the three months ending July 2012. Credit to the

Table 2: Geographic Profile of Credit Institutions' External Claims, Q2 2012

€ million

	Q1 2012 – Q2 2012 change	Outstanding Amount
Total	9,010	429,112
of which:		
Germany	-702	20,548
UK	-292	157,426
France	7,653	26,579
US	-1,233	39,710
Italy	1,306	47,985

Source: Tables A.19.1 and A.19.2 (Statistical Appendix), Central Bank of Ireland.

Note: These locational banking statistics are based on the international claims of bank offices resident in Ireland.

non-resident private sector fell by an average annual rate of 13 per cent, largely reflecting developments in lending to non-euro area residents.

During Q2 2012, the external claims of Irish credit institutions on non-residents increased by 2 per cent (or €9 billion) to €429 billion. €7.7 billion of this increase was accounted for by France. Claims on the UK fell by €0.3 billion, whilst claims on non-EU industrialised countries decreased by €1.8 billion.

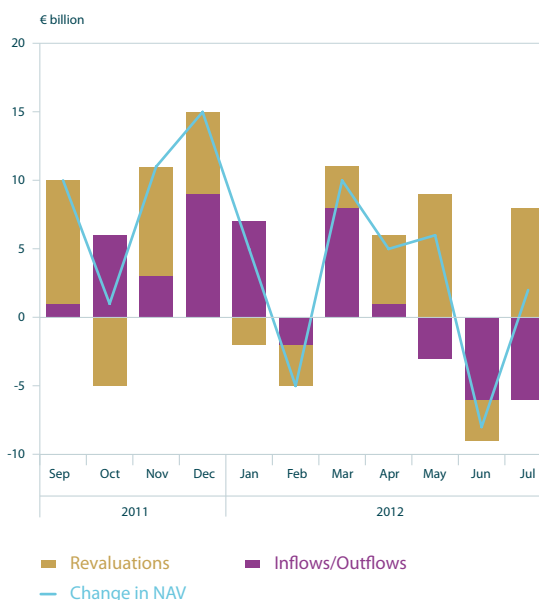
Money Market Funds¹

The total net asset value (NAV) of money market funds (MMFs) resident in Ireland rose from €281.9 billion at end-2011 to €298.3 by end-July 2012. The increase in the value of MMF NAVs over the period has been dominated by positive revaluations of circa €16 billion (Chart 2), as the market value of assets held by these MMFs increased. This increase more than offset the net redemptions of MMF shares/units of €1 billion over the first seven months of 2012. Net redemptions of MMF shares/units have been evident since May 2012, and were particularly large in June and July 2012, totalling €12 billion. This may in part reflect fund managers' anticipation of, and response to, negative yields on some short term asset classes in which many MMFs invest and the drop in the ECB deposit facility interest rate to zero that took effect following the Governing Council decision in early July. This decision potentially constrains the return on MMF assets in the short term, which may have led some fund managers to restrict access to their MMFs.

Despite the recent developments, the annual growth rate of the value of MMF shares/units in issue, both in Ireland and for the euro area as a whole, remains in positive territory (Chart 3). The annual growth rate of euro area MMF shares/units in issue had been negative since November 2009, before turning positive in April 2012. In contrast, the annual growth rate for MMF shares/units in issue in Ireland has been

positive since July 2009. The annual growth rate has been above the euro area aggregate in general since February 2009.

Chart 3: Monthly Change in Money Market Funds' Net Asset Values

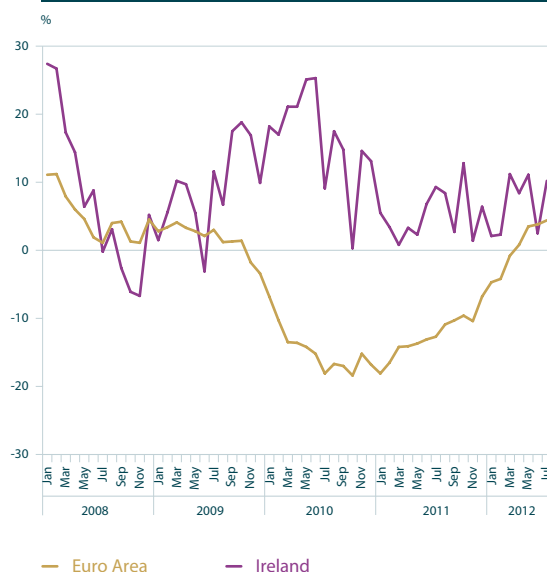


Source: Central Bank of Ireland.

In Ireland, MMFs primarily invest in money market instruments, repurchase agreements, bank deposits or pursue a rate of return that approaches the interest rates of money market instruments. MMFs balance sheets reveal investments primarily in securities other than shares and deposits which include repurchase agreements. In July 2012, 78 per cent of assets under management (AUM) were invested in securities, with approximately three quarters of those securities being issued by other MFIs. The share of holdings of government securities in MMF portfolios has decreased somewhat so far in 2012, while the share of non-government and non-MFI securities has risen, reflecting higher activity globally in the high-rated corporate debt markets.

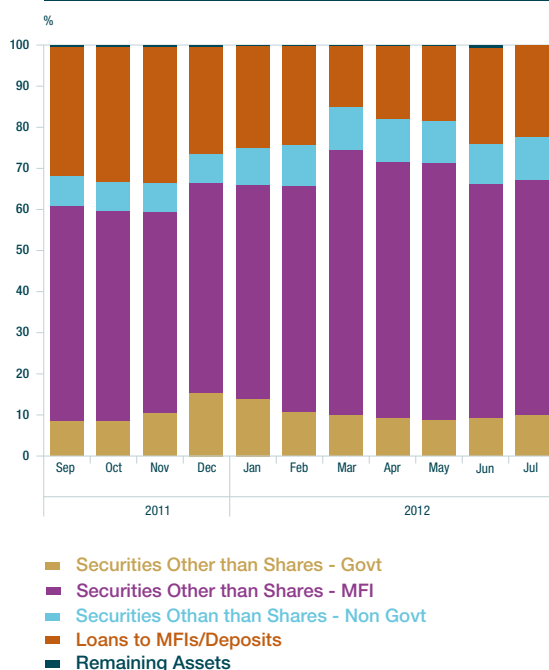
¹ Entities are classified as MMFs in accordance with the recently updated (Dec 2010) ECB statistical classification which more closely reflects the regulatory definition of an MMF as agreed with the European Securities and Markets Authority. Under the previous ECB definition, a MMF invested at least 85 per cent of their investment portfolio in instruments with a short maturity, or bank deposits that pursue a rate of return that approached the interest rate of money. In contrast, under the new definition the main principle is to maintain the net asset value of the fund either constant or at par, or the value of the investors' initial capital plus earnings, and to invest exclusively in high quality money market instruments and to provide liquidity through same day or next day settlement.

Chart 4: Annual Growth Rate of MMF Shares/Units



Source: European Central Bank.

Chart 5: Money Market Funds' Assets



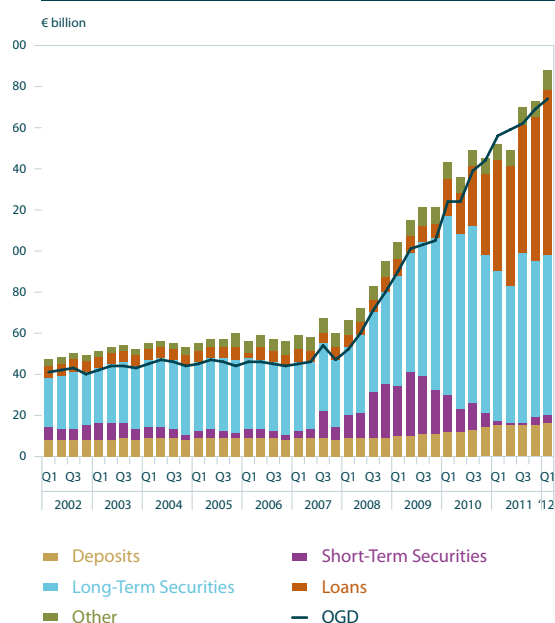
Source: Central Bank of Ireland.

Government

Debt and Deficit Developments

Government liabilities continued to increase during Q1 2012 reaching €186.7 billion, their highest level to date. This represented an increase of €13.4 billion, or 7.7 per cent, on the previous quarter, as depicted in Chart 6. The chart also shows that the Quarterly Government Debt (QGD), which is the standard quarterly measure of debt consistent with Excessive Deficit Procedure (EDP) methodology², also increased over the quarter, albeit to a lesser extent. The increase in government liabilities over the period partly reflected the receipt of further funding from the EU/IMF programme of €8.7 billion. At Q1 2012, loans from the EU/IMF programme stood at €42.9 billion, or 23 per cent, of total liabilities. The promissory note issued to IBRC, also classified as loans in government accounts, stood at €28.1 billion or 15.1 per cent of total liabilities. The increase in liabilities over the quarter also reflected positive revaluations of long-term debt securities, reflecting the continued volatility in sovereign debt markets during Q1 2012. The increase in liabilities was mitigated to some extent by the maturing of debt securities amounting to €5.7 billion over the quarter. At Q1 2012, debt securities represented 42.9 per cent of government liabilities.

Chart 6: Government Liabilities

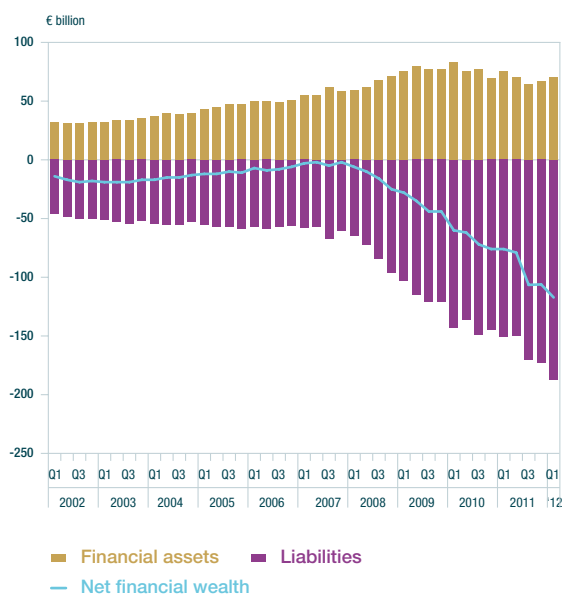


Sources: Quarterly Financial Accounts, Central Bank of Ireland;

² Government liabilities in QFA differ from the EDP measure of debt as they are calculated on a non-consolidated basis, and employ different coverage and valuation criteria.

Government net financial wealth, the difference between financial assets and liabilities, is depicted in Chart 7. The chart reveals that net financial wealth declined further during Q1 2012, as the increase in government assets over the period was outstripped by increased government liabilities. At Q1 2012, net financial wealth stood at minus €117.2 billion, a decrease of €11 billion, or 10.4 per cent, over the quarter. Since Q3 2008, government net financial wealth has declined by €101.3 billion.

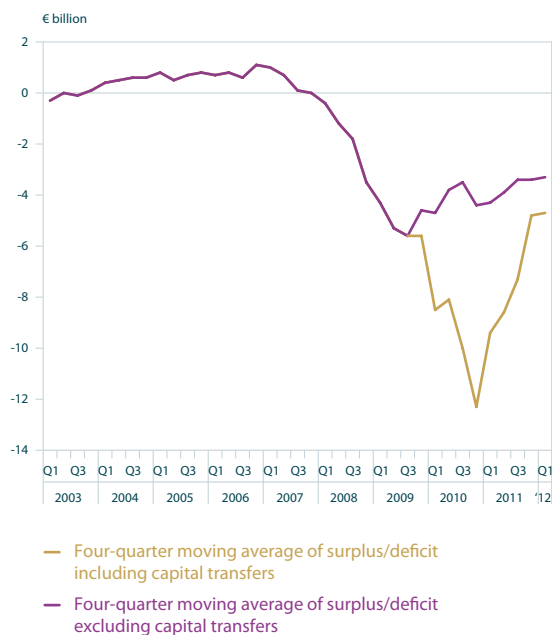
Chart 7: Government Net Financial Wealth



Source: Quarterly Financial Accounts, Central Bank of Ireland.

The government surplus/deficit, as a four-quarter moving average, is depicted in Chart 8. The deficit declined over the quarter from €3.4 billion in Q4 2011 to €3.3 billion during Q1 2012, when capital injections are excluded. The deficit including capital transfers also declined further during Q1 2012, from €4.8 billion to €4.7 billion. Since 2009, the State has injected €63 billion into the banking sector, of which €41.5 billion has been treated as a deficit-increasing capital transfer. The remainder were treated as financial transactions (or investments) in government accounts and therefore do not impact the deficit.

Chart 8: The Four-Quarter Moving Average of the Surplus/Deficit

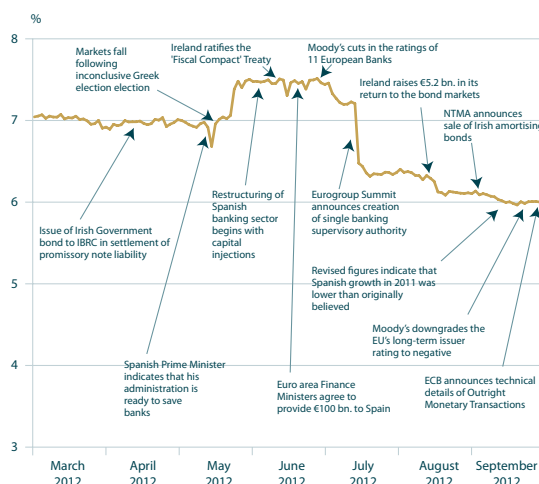


Source: Quarterly Financial Accounts, Central Bank of Ireland.

Sovereign Debt Market

The yield on ten-year Irish government debt remained at just under 7 per cent during the opening weeks of Q2 2012, but these went on to rise to close to 7.5 per cent by May before easing back slightly again. These yields stayed above 7 per cent throughout much of the latter half of Q2 2012 before declining sharply in late June in the aftermath of the announcement of an agreement at the European Summit to create a single supervisory authority for euro area banks and allow the ESM to directly recapitalise European banks as part of a new effort to break the 'vicious circle' between banks and sovereigns. This agreement also stated that the Eurogroup would examine the situation of the Irish financial sector with a view to further improving the sustainability of Ireland's adjustment programme. This fall of approximately 70 basis points brought these yields to below 6.5 per cent, the lowest level since March 2012. Thereafter, these yields continued to fall steadily over the course of the summer months reflecting Ireland's progress in regaining entry to international capital markets with bond issuances in July and August. By mid-September, the yields on ten-year Irish government debt had fallen back to 5.4 per cent, the lowest level for these yields since August 2010, see Chart 9.

Chart 9: Irish Government Ten-Year Bond Yields



Source: Thomson Reuters Datastream.

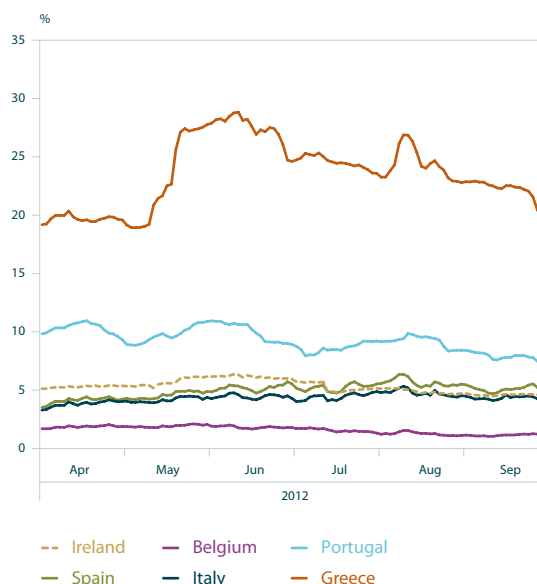
AAA-rated long-term euro area government bond yields fell between June and August 2012 on foot of a number of factors including flight-to-safety flows, a continued deterioration in growth prospects and the ECB's decision to cut key interest rates in early July. Over much of the same period, investors' uncertainty in near-term bond market developments decreased before beginning to climb again as August approached. In terms of euro area sovereign bond spreads, market attention was generally focussed on Spain as a number of Spanish regions came to request financial assistance from the central government. This led to greater market speculation around the potential need for a full financial assistance programme for Spain and by July, Spanish bond yields rose to the highest levels seen since the introduction of the single currency.

In early May 2012, the sovereign bond yield spreads of Greek debt relative to German Bunds began to rise and by early June, these had increased to almost 29 per cent (up from 19 per cent) before they began to ease back again. Over the same period, a similar trend was witnessed for a number of other periphery euro area Member States including Ireland and Portugal. In Ireland's case, these yield spreads fell by more than 190 basis points over a three-month period commencing in early June, reflecting the conflux of a number of factors including the Eurogroup summit

announcement in late June and Ireland's tentative re-entry to the international capital markets. This downward trend was even more pronounced for Portugal, where the yield spreads narrowed by more than 350 basis points over the same period, see Chart 10.

In early September 2012, the Governing Council of the ECB announced its decisions on a number of technical details regarding Outright Monetary Transactions (OMTs). These OMTs will be undertaken in secondary sovereign bond markets with the aim of safeguarding an appropriate monetary policy transmission mechanism and the singleness of the monetary policy. The ECB announced that such transactions will be considered in the case of future EFSF/ESM macroeconomic adjustment programmes but that these transactions would be subject to the conditionality attached to such EFSF/ESM programmes. On foot of the announcement of the OMTs, the Securities Markets Programme (SMP) was terminated.

Chart 10: Selected Euro Area Ten-Year Sovereign Bond Spreads over German Bunds

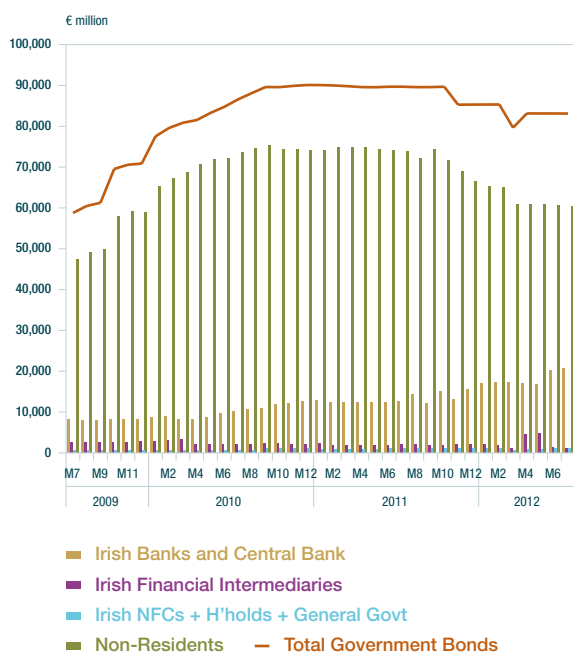


Source: Thomson Reuters Datastream.

Finally, there was some further evidence of Ireland decoupling from the other peripheral Member States in Q3 2012. For instance, the yield spreads on ten-year Irish government debt fell by 10 per cent between end-Q2 and early September. Over the same period, the yield spreads on Spanish debt also fell, but by only 5 per cent. However, while Greece and Portugal recorded larger falls over the same period at 18 per cent and 16 per cent, respectively, the yields remain elevated compared with Ireland.

The outstanding nominal volume of existing Irish government long-term bonds in issue was €83.1 billion at end-July 2012, down from €89.7 billion at end-July 2012, down from €89.7 billion for the same period in 2011. By end-July, the holders of government bonds continued to be predominantly non-resident, holding 73 per cent of government bonds in issue. Resident holders predominantly comprised banks (25 per cent), whilst financial intermediaries held a further 1 per cent.

Chart 11: Holders of Irish Government Bonds



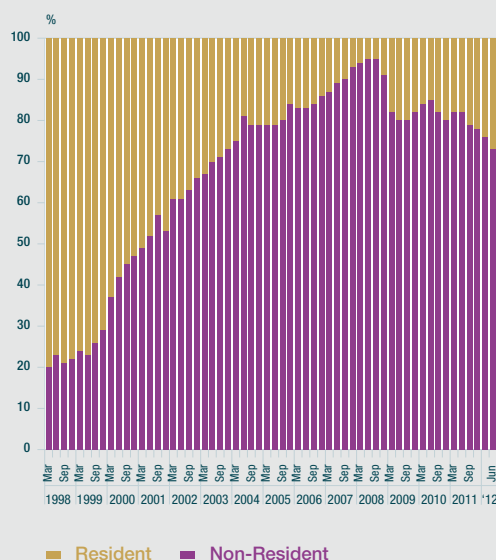
Source: Central Bank of Ireland.

Box 1: Irish Sovereign Bond Yields and Non-Resident Holdings

By Dermot Coates and Mary Everett³

In the decade before the Economic and Monetary Union (EMU), non-resident holdings of Irish government long-term bonds had not come to exceed more than 35 per cent of the total stock of outstanding debt, and on the eve of the Euro's introduction these holdings accounted for just 22 per cent of all outstanding long-term bonds. The role played by non-resident holdings was relatively minor when compared with the quantum of debt held by the domestic investors including the banking system, financial intermediaries and other non-financial resident investors. This was to change rapidly however, and within three years of the launch of the single currency, total non-resident holdings had more than doubled to €10.9 billion (56 per cent of total outstanding). This pronounced upward trajectory continued unabated until 2008, with non-resident investors eventually coming to account for €35.9 billion (95 per cent of total outstanding) before the onset of the current financial crisis (Box 1 Chart 1).

Box 1 Chart 1: Trends in Resident and Non-Resident Holdings of Irish Sovereign Bonds



Source: Central Bank of Ireland.

Post-EMU, the increase in non-resident investment in sovereign bonds was not unique to Ireland but was replicated across the euro area (Box 1 Table 1). For instance, non-resident holdings accounted for less than 27 per cent of Spain's sovereign bonds in late-1998, but by 2006 this had risen to more than 50 per cent. According to Forster, Vasardani and Ca' Zorzi (2011)⁴, the launch of the Euro facilitated the reallocation of capital among euro area countries and heralded a marked increase in intra-euro area portfolio holdings. As part of this process, euro area investors sought to diversify their sovereign bond holdings across different euro area countries in order to capture the potential benefits of greater portfolio allocation, and to satisfy a desire for low-risk expected returns. This occurred for a number of reasons, including a perceived enhancement of creditworthiness due to EMU membership and the elimination of exchange rate risks.

³ The authors are respectively an Economist and Senior Economist in the Statistics Division of the Central Bank.

⁴ Katrin Forster & Melina Vasardani & Michele Ca' Zorzi, (2011), "Euro area cross-border financial flows and the global financial crisis", Occasional Paper Series 126, European Central Bank.

Box 1: Irish Sovereign Bond Yields and Non-Resident Holdings*By Dermot Coates and Mary Everett³***Box 1 Table 1: Non-Resident Holdings as a Percentage of Total Government Debt**

	1998	2005	2011
France	17.0	53.0	57.0
Germany	34.0	43.9	55.9
Greece	30.5	63.1	57.1
Ireland	22.0	84.0	78.0
Italy	30.1	48.2	45.5
Netherlands	n.a.	67.6	64.1
Spain	26.7	49.1	36.4
UK	20.6	26.1	31.1
Belgium	23.7	52.1	53.0
Finland	44.3	82.7	88.9
Portugal	54.2*	74.5	67.0

Sources: Central Bank of Ireland and Bruegel dataset of Sovereign bond holdings (2012).

Note: All data refer to Q4 except Belgium, Finland and Portugal (annual data only).

* Portugal data refers to 2000 (1998 is not available).

One consequence of this heightened demand for sovereign bond holdings across the euro area was a decline in bond yields. The aforementioned increase in intra-euro area portfolio holdings was a key determinant of the decline in yield spreads vis-à-vis Germany to very low levels witnessed by a number of countries, including Ireland (Box 1 Charts 2 and 3). In Ireland's case, these yields had varied within a range of 4 per cent through to 5.5 per cent throughout 1998 but by mid-2005, yields on Irish long-term bonds had eased back to closer to 3 per cent at a time when non-resident holdings of Irish sovereign bonds had increased. Research by Andritzky (2012)⁵ has shown that whilst there is an empirical relationship between sovereign bond yields and non-resident holdings, this relationship can be more ambiguous than it is sometimes thought to be. That research has shown that, in some cases, a change in the investor base can precede yield decline; this is known as a 'push effect', where changes in the investor composition influence yields. Alternatively, it can also be the case that a 'pull effect' may prevail (i.e. yield changes influence investor behaviour). However, these can be both investor and country-specific. Andritzky (2012) concludes that a pull effect in the form of lower yields attracting non-resident investors can be observed for the countries examined⁶.

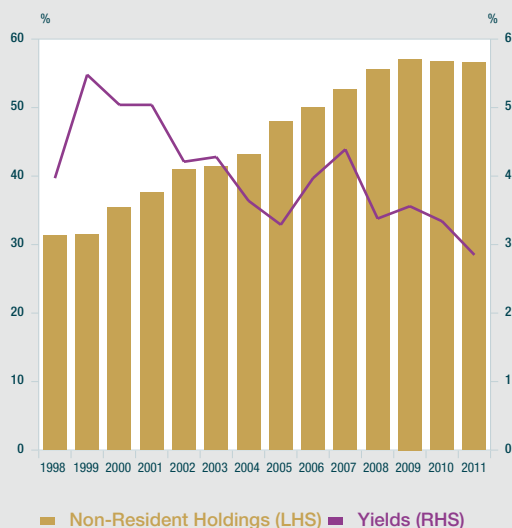
⁵ Andritzky, J (2012), "Government Bonds and Their Investors: What Are the Facts and Do They Matter?", IMF Working Paper No. WP/12/158, Washington D.C.

⁶ Nine advanced G20 economies plus four peripheral euro area economies (including Ireland).

Box 1: Irish Sovereign Bond Yields and Non-Resident Holdings

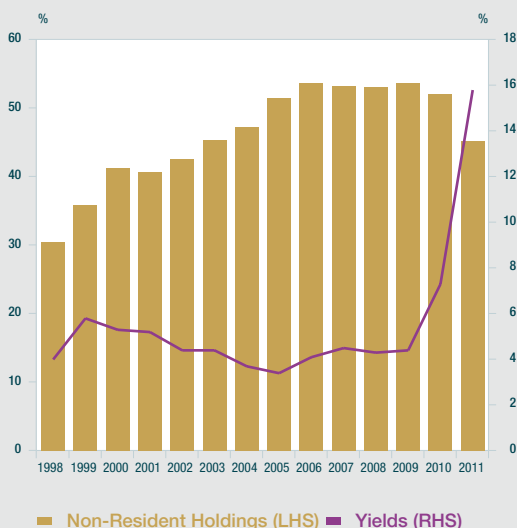
By Dermot Coates and Mary Everett³

Box 1 Chart 2: Northern Euro Area Countries' Sovereign Bonds and Yields and Non-Resident Holdings



Sources: The Bruegel Dataset of Sovereign Bond Holdings (2012) and Datastream.

Box 1 Chart 3: Southern Euro Area Countries' Sovereign Bonds Yields and Non-Resident Bond Holdings

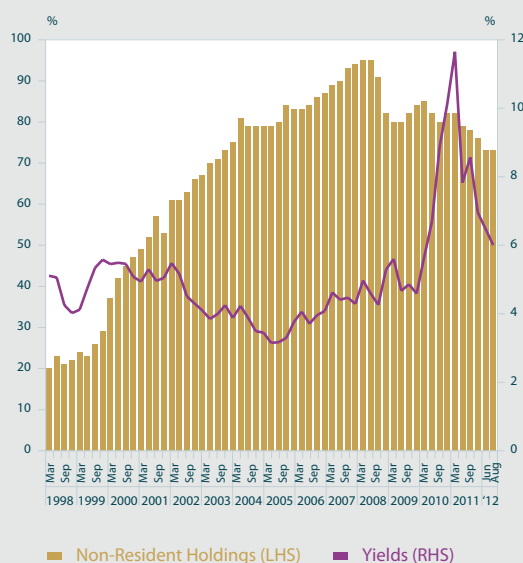


Sources: The Bruegel Dataset of Sovereign Bond Holdings (2012) and Datastream.

This finding is consistent with observable trends repeated across a number of euro area Member States including Greece, Italy and Spain where non-resident holdings increased post-EMU, but where these holdings have fallen in recent years as yields have increased. This would suggest that non-resident investors have increasingly sought to reduce their exposure to foreign holdings. This is reminiscent of past crises where home bias became increasingly evident as 'domestic investors emerged as the primary buyers of domestic issuance during the crisis while non-resident investors tended to withdraw' (Andritzky (2012)). The pullback of foreign investors also reflects a decision to move out of holdings of perceived 'risky' assets as part of a pattern of 'flight to quality' out of the periphery and into German bonds, where non-resident holdings of the latter have actually increased in recent times. Moreover, Andritzky's (2012) findings are also consistent with Box 1 Chart 4 which indicates that non-resident holdings of Irish sovereign debt increased over a long period post-EMU when yields on Irish sovereign bonds were steadily falling.

Box 1: Irish Sovereign Bond Yields and Non-Resident Holdings*By Dermot Coates and Mary Everett³*

Box 1 Chart 4 also indicates that non-resident holdings dropped sharply post-2008 whilst yields on Irish sovereign bonds rose. At the same time as yields were rising, there was a clear compositional shift from non-resident investors to domestic investors, with Irish resident holdings rising from 5 per cent in mid-2008 to 27 per cent by mid-2012. However, this underlying change in the composition of Irish bond holdings cannot be attributed solely to the rising yields on these bonds. The increase in domestic holders was predominantly due to Irish banks' demand for government bonds to use as collateral for monetary policy operations. A number of further factors must also be borne in mind when interpreting these trends with regard to Ireland. The reduction in the stock of non-resident holdings that is evident post-2008 does not solely reflect a pullback of foreign investors from Irish sovereign debt, but rather a number of Irish government long-term bonds maturing with the total outstanding stock falling by 5 per cent from late-2010 (from €90.1 billion to €85.3 billion). Furthermore, the total quantum of non-resident holdings was also influenced by the commencement of the ECB's Securities Markets Programme (SMP) in mid-2010, whereby the sovereign bonds of a number of euro area Members States, including Ireland, were purchased on the secondary markets.

Box 1 Chart 4: Irish Sovereign Bond Yields and Non-Resident Bond Holdings

Sources: Central Bank of Ireland and Datastream

The foregoing demonstrates that non-resident holdings of Irish sovereign debt did increase post-EMU when yields on Irish sovereign bonds were steadily falling, but that this trend was sharply reversed in the wake of the onset of the current financial crisis. Interestingly, Box 1 Chart 4 suggests that for a time these non-resident holdings had continued to rise up until mid-2008, even as yields on Irish government long-term debt were climbing, but that Andritzky's (2012) pull effect came to prevail thereafter as foreign investors began to pull away from these bonds. The yields on Irish sovereign bonds spiked markedly upwards in late 2010 and early 2011, driven by concerns over Ireland's banking system and its potential impact on the sovereign.

During the course of this period, non-resident holdings continued to fall steadily with the exception of a temporary rise in mid-2010 as the first SMP programme got underway. More recently, the yields on Irish sovereign bonds have fallen back from the peaks reached in 2010. These falls occurred at a time when Ireland had made a number of tentative steps towards re-entering the international capital markets, including new bond issuances in August 2012 which were predominantly purchased by non-resident investors.

Institutional Investors: Investment Funds, Financial Vehicle Corporations and Insurance Corporations & Pension Funds

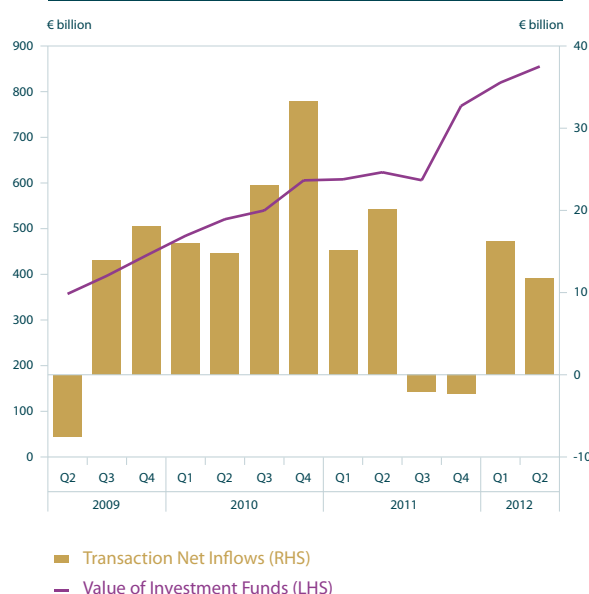
Investment Funds

Irish resident investment funds (IFs) experienced significant growth for the third successive quarter in Q2 2012, driven by a recovery in both asset valuations and the sale of new shares/units. This growth was concentrated primarily in bond funds, as opposed to previous quarters where growth was more evenly distributed. The overall value of the Irish investment fund industry, measured by total shares/units in issue, increased to €855.1 billion at end-Q2 2012, up from €819.8 billion at end-Q1 2012. This increase is accounted for by revaluations of €23.6 billion and positive net transactions of €11.7 billion.

Holdings of sovereign bonds, within the asset allocation of IFs, remained relatively static, with a slight tendency toward safe haven flows. Euro area sovereign debt holdings increased by €1.5 billion to €41.6 billion, though when Germany is excluded, the increase was only €0.1 billion, to €23.3 billion. Holdings of US government bonds rose by €2.9 billion to €38.8 billion, which was entirely driven by dollar appreciation of 6 per cent vis-à-vis the euro. The largest observable movement in sovereign bonds occurred in the holdings of UK bonds, which experienced net outflows of €6.1 billion, with IFs holding €43.8 billion at the end of Q2 2012. This may reflect the impact of quantitative easing by the Bank of England which involves significant purchases of these bonds. Nevertheless, the UK still accounted for a larger share of sovereign debt holdings than the euro area or US. Holdings of Italian and Spanish government debt remained largely unchanged, at €6.2 and €1.3 billion respectively, while holdings of Greek debt were negligible. Significant increases in the holding of bank paper in Q1 were largely reversed, with €13.3 billion flowing out of IFs through transactions, despite positive revaluations of

€6.8 billion, to close at €166.1 billion. The paper of other financial institutions and non-financial institutions appeared to benefit, with net inflows of €9.6 billion and €11.9 billion respectively, to finish at €109.5 billion and €139.1 billion. Of all assets held by Irish resident IFs, excluding unclassified assets, 78 per cent are domiciled outside of the euro area, with 13 per cent in the EU and 9 per cent within the state.

Chart 12: Value of Investment Funds Shares/Units



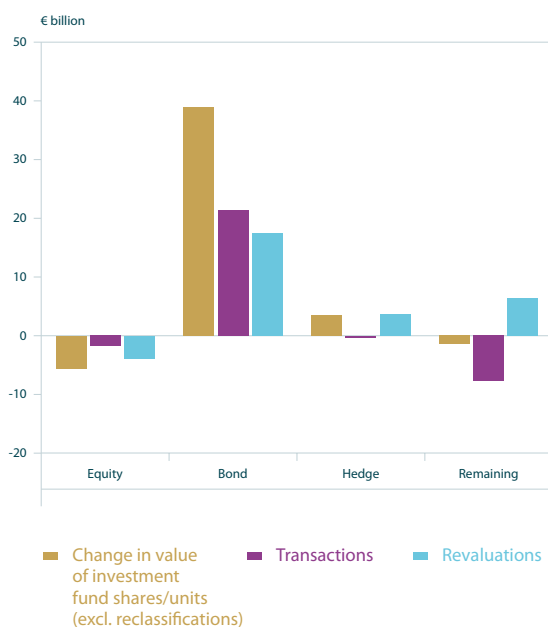
Source: Investment Funds Statistics, Central Bank of Ireland.

Please note that the movement from Q3 2011 to Q4 2011 includes €114 billion of MMFs that were reclassified as IFs in accordance with Regulation ECB/2001/12. Please see information release of Investment Fund Statistics, 14 March 2012, for further details.

Performances of funds by strategy were mixed over the quarter. With the exception of bond funds, all categories experienced net outflows. Equity funds, which account for €273 billion (32 per cent) of all IFs, saw negative revaluations of €3.8 billion and net transactions outflows of €1.7 billion, as global equity markets contracted. Hedge funds increased in overall value from €73.1 billion to €76.6 billion, but this was driven entirely by revaluations amid a net transactions outflow of €0.3 billion. Other funds, comprised mostly of

mixed funds, experienced the most significant transactions outflows, of €7.7 billion, despite positive revaluations of €6.3 billion, culminating in a decline in overall value from €147.1 billion to €145.7 billion. In contrast, bond funds, which account for €359.6 billion or 42 per cent of the value of the IF industry, experienced significant inflows of €21.4 billion and large positive revaluations of €17.5 billion. Overall, these patterns suggest some rebalancing away from riskier investment strategies.

Chart 13: Change in Value of Shares/Units by Investment Fund Category, Q2 2012



Source: Investment Funds Statistics, Central Bank of Ireland.

Financial Vehicle Corporations

Total assets for financial vehicle corporations (FVCs) resident in Ireland continued to decline during Q2 2012, falling to €469.2 billion (from €480.7 billion in Q1 2012), continuing the trend seen since the start of 2011. Conversely there was an increase in the number of the vehicles reporting in Ireland which has risen to 695 at end-Q2, the first increase reported since Q4 2010. However, some FVCs are continuing to be liquidated due to difficulties in obtaining refinancing as market conditions remain strained with continued fears over the euro area.

In Q2 2012, the fall in assets was due to a large outflow of €15.7 billion. This was the smallest decrease in assets reported since Q2 2011. The decline was mainly attributable to large negative transactions in shares & other equities and other assets on the asset side of the balance sheet of €5.9 billion and €4.2 billion, respectively. The negative transactions reported for securities other than shares decreased substantially, falling to €1.6 billion (from €11.5 billion in Q1 2012). On the liabilities side, the decline was reflected in large outflows of €13.5 billion in debt securities issued over two years and €3 billion in debt securities issued up to one year. This contributed to the overall fall in debt securities issued to €333.7 billion (from €350 billion in Q1 2012). These large outflows were partially offset by a positive revaluation of €4.2 billion over the quarter, largely attributable to derivatives and securities other than shares.

Chart 14: Quarterly Change in Total Assets of Irish Resident FVCs

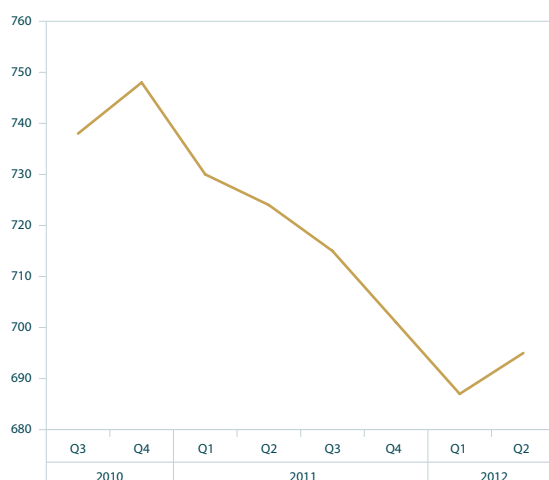


Source: Financial Vehicle Corporation Statistics, Central Bank of Ireland.

Irish resident FVCs continued to follow the euro area trend in terms of net outflows during the second quarter of 2012. Irish resident FVCs reported outflows of €15.7 billion, which contributed to total euro area outflows of

€82.8 billion. These outflows contributed to the continued fall in total euro area FVC asset figures which measured €2,146 billion as at end-Q2. The decline in Irish assets is mainly as a result of a fall in Residential Mortgage-Backed Securities, Multi-Issuance Vehicles and Cash CDOs. As at the end of Q2 2012, Ireland's share of total euro area assets amounted to 21.9 per cent.

Chart 15: Number of Reporting Irish Resident FVCs



— Number of Reporting Irish Resident FVCs

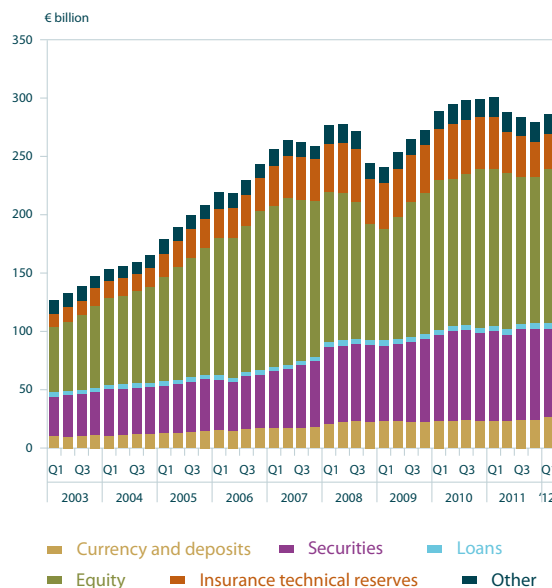
Source: Financial Vehicle Corporation Statistics, Central Bank of Ireland.

Insurance Corporations & Pension Funds

Irish resident insurance corporations and pension funds (ICPFs) held financial assets of €286 billion at the end of the first quarter of 2012. This accounts for just over 8.1 per cent of the total financial assets of the Irish financial sector. In Q1 2012, the ICPF sector's financial assets increased by 2.6 per cent, following a decline in the last three quarters of 2011 (Chart 16). The change in stock levels in Q1 2012 is largely explained by 'shares and other equity', which increased by 5.3 per cent over the quarter. The ICPF's sector's stock of 'currency and deposits' increased by 9 per cent, while the 'other accounts receivable/ payable' category of assets showed a 3.1 per cent increase. There

were quarterly declines in stocks of 'securities other than shares' and loans by 2.4 per cent and 1.1 per cent, respectively.

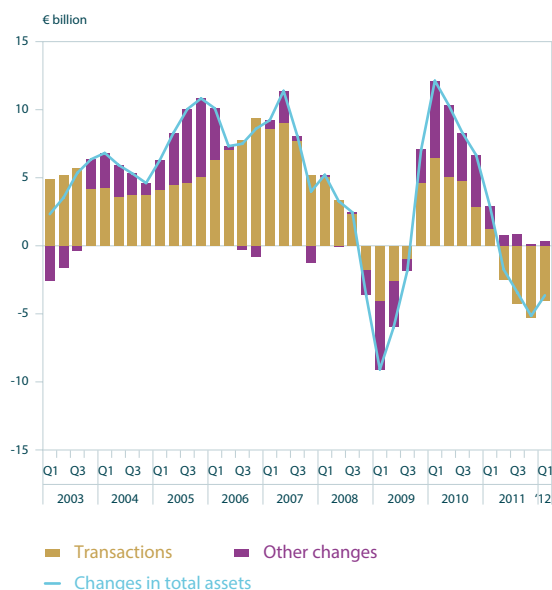
Chart 16: Assets Portfolio of Insurance Corporations and Pension Funds



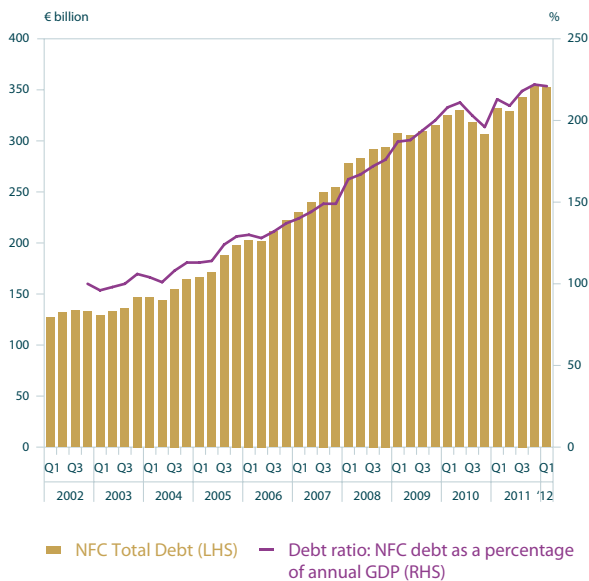
Source: Quarterly Financial Accounts, Central Bank of Ireland.

The increase in the outstanding amount of financial assets held by the ICPF sector in Q1 2012 arose primarily from transactions, as well as, to a lesser extent, positive valuation and other changes. In Q1 2012, transactions amounted to almost €5 billion, while revaluations and other changes amounted to approximately €2 billion (Chart 17).

In 2011, the assets under management in Irish pension funds decreased by 4.2 per cent (Irish Association of Pension Funds, Pension Investment Survey 2011) and there may be as many as 80 per cent of defined benefit schemes in deficit, according to the Irish Pension Board. The Government introduced legislation to allow pension funds to purchase a new product called "sovereign annuities" which may be used to tackle their schemes' deficits. More information on sovereign annuities is available in Box 2 below.

Chart 17: Contribution of Transactions in Assets and Valuation Changes to ICPFs' Assets, Four-Quarter Moving Average

Source: Quarterly Financial Accounts, Central Bank of Ireland.

Chart 18: NFC Debt as a Percentage of GDP

Sources: Quarterly Financial Accounts, Central Bank of Ireland and Quarterly National Accounts, CSO.

Box 2: Sovereign Annuities

The Central Bank noted increased commentary in the marketplace with regard to a new product concept entitled sovereign annuities. A sovereign annuity is an annuity contract issued by an insurance company where the annual income payment is linked directly to payments under bonds issued by Ireland or any other EU Member State. Legislation facilitating the introduction of sovereign annuities was passed by the Oireachtas in late 2011 (The Social Welfare and Pensions Act 2011).

The sovereign annuity initiative has been billed by many market commentators as a means by which the deficits of many occupational pension schemes may be materially reduced. Sovereign annuities may be significantly cheaper than traditional annuities for pension schemes. This is due to the fact that annuities in the past have been supported by AAA rated governments bonds, but may now be supported by a basket of government bonds other than those rated purely AAA. The resulting cheaper annuities will have the benefit of improving the deficit position for pension schemes availing of the initiative. It will however require that the trustees of occupational pension schemes (both defined benefit and defined contribution schemes) carefully consider whether this initiative is appropriate to the individual scheme's circumstances and consider the trade-off between the increased credit exposure for the scheme pensioners versus the improved financial position of the overall pension scheme for both active and deferred members.

Sovereign annuity products offered by insurers must have those products certified by the Pensions Board under Section 53B of the Pensions Act, 1990. It is understood that some insurance undertakings are in the process of acquiring approval from the Pensions Board in this regard. In light of their complexity, it may be some time before trustees are in a position to evaluate what options are most appropriate to their schemes' particular circumstances.

Further information on the product can be found on the Pensions Board website, www.pensionsboard.ie

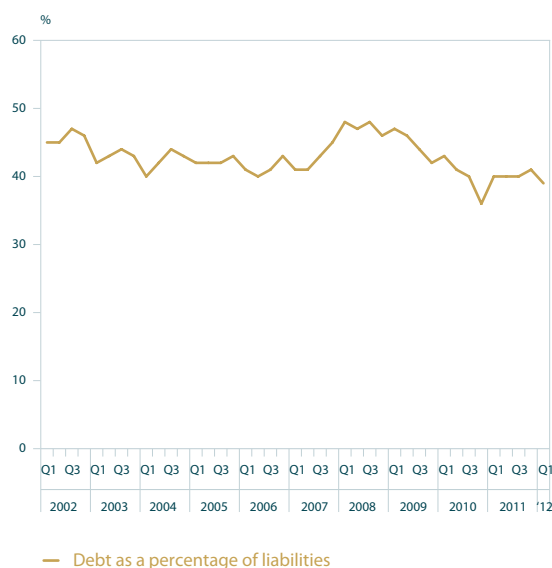
Non-Financial Corporations

Non-financial corporation (NFC) debt decreased during Q1 2012 to reach €352 billion, or 221 per cent of GDP, a fall of 1 per cent from the highest levels ever recorded in Q4 2011⁷. This represented a decrease of €0.8 billion, compared with the previous quarter. NFC debt had been on an upward trend during Q3 and Q4 2011, as seen in Chart 18. The increase in NFC debt during Q3 and Q4 was largely caused by increasing debt levels of multinational corporations operating in Ireland.

NFC debt as a percentage of total liabilities, an indicator of NFC debt sustainability, is depicted in Chart 19. The chart shows that NFC debt constituted 39 per cent of total liabilities in Q1 2012, a decline of 2 per cent from the previous quarter. The debt sustainability ratio was, on average, 40 per cent over the four quarters of 2011.

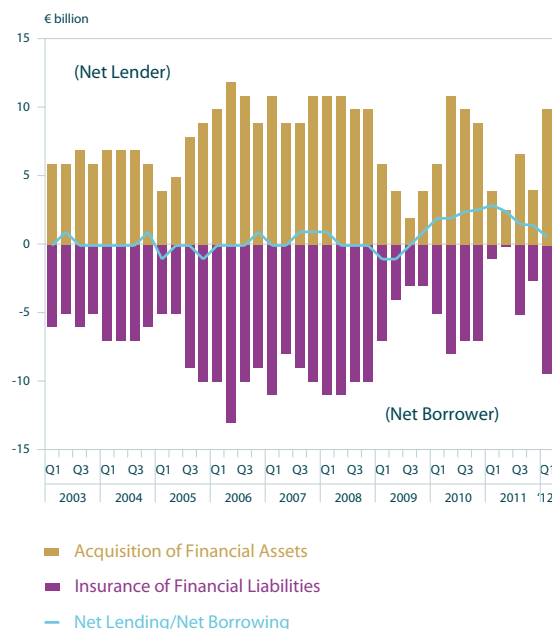
NFCs were a net lender in Q1 2012, for the tenth consecutive quarter. NFC net lending/net borrowing⁸ is depicted in Chart 20. This shows that NFC net lending amounted to €0.6 billion over the quarter. This is at a relatively low level when compared with the previous nine quarters. Chart 20 also shows NFCs increased their acquisition of financial assets and incurrence of liabilities in greater quantities than in the previous five quarters, when measured as a four-quarter moving average.

Chart 19: NFC Debt as a Percentage of NFC Liabilities



Source: Quarterly Financial Accounts, Central Bank of Ireland.

Chart 20: NFC Net Lending/Net Borrowing on a Four-Quarter Moving Average Basis



Source: Quarterly Financial Accounts, Central Bank of Ireland.

⁷ GDP is measured as a four-sum moving average of quarterly GDP at market prices.

⁸ The NFC net lending/net borrowing position is measured as a four-quarter moving average, to adjust for seasonality.

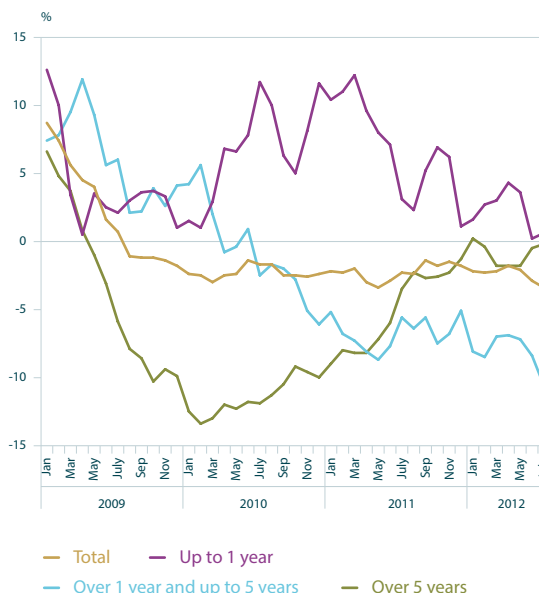
Credit Advanced to the NFC Sector by Irish Resident Credit Institutions

Credit advanced to the resident NFC sector (including loans to NFCs as well as credit institutions' holdings of securities issued by NFCs) declined at an annual rate of 2.8 per cent, based on the average for the three months ending July 2012. The monthly net flow of credit to the NFC sector, which removes any non-transaction effects, averaged minus €343 million during this three-month period.

The annual rate of change in loans to Irish resident NFCs averaged minus 2.8 per cent in the three months ending July 2012. Loans issued by resident credit institutions are an important source of funding for indigenous corporations. This is particularly relevant for small and medium sized enterprises (SMEs), unlike the multinational sector which may have greater ease of access to alternative market-based funding and injections from overseas parent entities. The pace of contraction in longer-term loans has eased in recent months, with the average annual rate of change in loans with an original maturity over five years being minus 0.8 per cent in the three months ending July 2012. In contrast, loans with an original maturity of between one and five years continued to fall more sharply, declining at an average annual rate of 8.7 per cent in the three months ending July. Short-term loans to NFCs with an original maturity up to one year, which include the use of overdraft facilities, continued to increase on an annual basis, albeit at a much slower pace than in previous months. Short-term loans to NFCs recorded an average

growth rate of 1.5 per cent over the same three-month period, with particularly low growth seen in both June and July.

Chart 21: Loans to Irish Resident NFCs, Annual Rates of Change



Source: Money and Banking Statistics, Central Bank of Ireland.

Credit to non-financial enterprises, which cover both corporations and non-incorporated businesses, continued to contract on an annual basis up to end-June 2012, falling by 3 per cent over the year. The reduction in credit outstanding, resulting from both supply and demand dynamics, was reflected across all main sectors of economic activity, including agriculture (3.6 per cent decline), and business

Table 3: Credit Advanced to Non-Financial Enterprises - Annual Percentage Change

	All Enterprises					SMEs				
	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
Construction and Real Estate	-2.3	-1.2	0.6	-0.2	-1.9	-15.1	-7.9	-5.1	-3.7	-1.6
Agriculture	-1.9	-3.1	-4.5	-3.6	-3.6	-8.3	-8.2	-9.8	-7.2	-4.9
Manufacturing	-9.8	-5.5	-1.3	-5.7	-1.3	-10.6	-9.8	-5.9	-6.6	-0.4
Wholesale/Retail Trade & Repairs	-8.1	-8.3	-3.4	-3.8	-2.4	-10.6	-8.4	-6.0	-6.8	-6.3
Hotels and Restaurants	-5.3	-4.1	-2.0	-2.0	-1.9	-14.4	-10.4	-4.2	-3.6	-2.8
Business and Administrative Services	3.9	-3.0	-14.3	-8.7	-11.8	-2.9	-5.4	-10.3	-9.4	-4.8
Other	-22.8	-21.1	-15.4	-8.0	-7.5	-9.5	-8.3	-6.5	-6.6	-5.1
Total	-5.3	-4.5	-2.6	-2.3	-3.0	-12.5	-8.2	-5.4	-4.9	-2.9

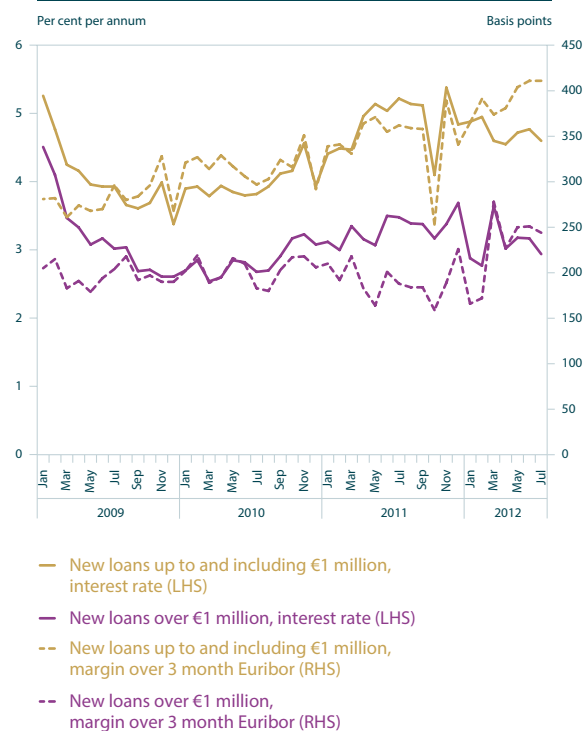
Source: Trends in Business Credit and Deposits, Central Bank of Ireland.

and administrative services (11.8 per cent decline). The decline in these two sectors follows previous increases through much of 2010 and part of 2011 which have now been partly reversed. In contrast, the annual declines in credit advanced to both the wholesale/retail trade and the hotels/restaurants sectors have eased in most recent quarters, and were 2.4 per cent and 1.9 per cent at end-June 2012 respectively. In contrast to previous quarters, the year-on-year reduction in credit during Q2 has been more pronounced for larger enterprises than for SMEs. Total lending to non-financial SMEs was 2.9 per cent lower on an annual basis at end-June 2012, and 4.6 per cent lower for those enterprises not engaged in construction or real estate activities.

Interest rates on outstanding loans to NFCs, issued by Irish resident credit institutions, fell for the ninth consecutive month. The weighted average interest rate on all outstanding NFC loans was 3.26 per cent at end-July 2012, declining 47 basis points since end-December last year. The fall in the weighted average interest rate of all loans to NFCs was principally derived from a decline in rates pertaining to loans with original maturities of over one year. Interest rates on loans to NFCs with original maturities of up to one year have remained relatively stable over the last number of months. At a euro area level, the corresponding interest rates on all outstanding loans to NFCs stood at 3.53 per cent at end-July 2012. Loans with an original maturity over one year accounted for just over 73 per cent of all outstanding loans issued to NFCs by Irish resident credit institutions at end-July 2012. The weighted average interest rate on both medium- and long-term loans⁹ was approximately 3.07 per cent at end-July 2012. The equivalent short-term interest rate stood at 3.75 per cent during the same period, underlining the term-effect of rates being offered to NFCs by Irish resident credit institutions.

In terms of new business, the weighted average interest rate on new loans to NFCs up to a value of €1 million¹⁰ was 4.61 per cent at end-July 2012, representing a decline of 23 basis points since December 2011 and the third consecutive month that rates have fallen. The equivalent rate reported by euro area credit institutions for July 2012 was 4.12 per cent. The interest rate on loans to NFCs by Irish resident credit institutions valued at over €1 million was 2.94 per cent at end-July 2012, having fallen 75 basis points since end-December 2011.

Chart 22: Interest Rates on New NFC Loan Agreements



Source: Retail Interest Rate Statistics, Central Bank of Ireland.

⁹ Short-term loans are those with an original maturity up to one year, medium-term loans have an original maturity of between one and five years and long-term loans are those with an original maturity of over five years.

¹⁰ The weighted average interest rate on new loans to NFCs up to a value of €1 million is often used as a proxy for the interest rate most applicable to the SME sector.

Multinational NFC Developments

Recourse by resident multinational NFCs, both foreign and Irish-owned, to market-based funding as an alternative to bank funding remained relatively steady over the course of Q2 2012, at just over €2.8 billion. In Q2 2012, net redemptions were €188 million. This compares with net redemptions of €32 million during Q1 2012 and €831 million during Q2 2011.

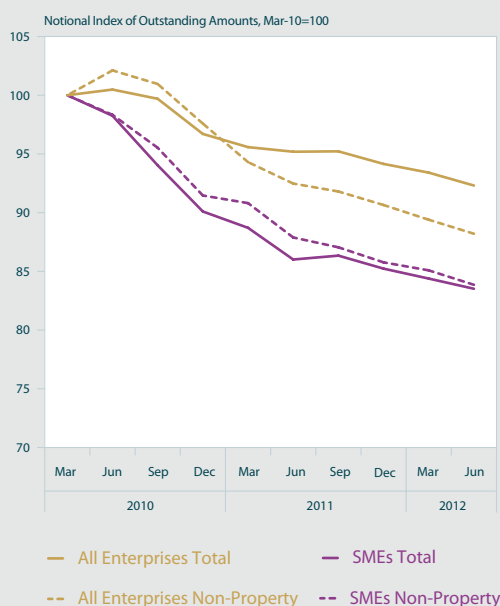
The value of multinational NFCs' equities rose by 10 per cent to €156.5 billion between Q2 2011 and Q2 2012. Over the same period, all listed equity, namely shares, rose from €162.4 billion to €184.3 billion, representing an increased value of 14 per cent over the course of the past year.

Box 3: Tracking Developments in SME Credit

By Martin O'Brien, Statistics Division

This box examines in more detail data on lending to Irish SMEs by credit institutions resident in Ireland. Since 2010, the Central Bank has published data on activity in the SME bank lending market, which are released as part of the quarterly *Trends in Business Credit and Deposits* series. Using this data, it is possible to compare the developments in lending to SMEs in certain sectors to that for all enterprises. Here we focus on non-financial enterprises (Box 3 Chart 1), in which lending to SMEs account for 62.7 per cent of total lending to non-financial enterprises (Box 3 Table 1).

Box 3 Chart 1: Developments in Lending to Enterprises by Size and Purpose



Source: Business Credit and Deposits, Central Bank of Ireland.

Since March 2010, lending to SMEs has declined to a greater extent than lending to enterprises as a whole, with a fall of 16.5 per cent versus 7.7 per cent over the period. This difference is most significant however, for enterprises engaged in the property related sectors of real estate and construction. When these enterprises are excluded, SME lending is shown to have declined by 16.1 per cent, while lending to large non-property related non-financial enterprises declined by 1.5 per cent, bringing the fall in total lending to non-property related enterprises to 11.8 per cent. It can be seen from Box 3 Chart 1 that lending to both SMEs engaged in property related sectors and those that are not, have followed a similar trend since March 2010. This has not been the case for large enterprises, where large differences have emerged.

Credit advanced to large enterprises engaged in construction or real estate remained relatively static from March 2010 to June 2012, whereas lending to non-property related large enterprises has fallen by 8.8 per cent over the period. This is indicative of the impaired nature of much of the property related lending to large enterprises, with relatively little activity evident in terms of amortisation and new lending flows.¹¹

¹¹ Much of the lending in this category for Irish-owned credit institutions would have been transferred to NAMA.

Box 3: Tracking Developments in SME Credit

By Martin O'Brien, Statistics Division

Using the data available on SME new lending draw downs and the net flow of SME lending, it is possible to derive estimates for the amortisation of SME loans (Box 3 Table 1). These show the relative levels of activity in lending to SMEs in each sector. Cumulative new lending draw downs by SMEs in agriculture, for example, totalled €1.2 billion from Q2 2010 to Q2 2012, equivalent to 28 per cent of the Q1 2010 stock of lending to the sector. Interestingly, the amortisation rate of loans to agriculture SMEs has also been high over the period, equivalent to 41.2 per cent of their Q1 2010 stock of lending. The smallest amount of new lending draw downs relative both to the Q1 2010 stock of lending and the cumulative amortisations since that time is for the hotels and restaurants sector. New lending draw downs by SMEs in this sector was equivalent to just 3.9 per cent of Q1 2010 stock of loans. Overall, new SME lending draw downs from Q2 2010 to Q2 2012 have been €6.6 billion (11.6 per cent of Q1 2010 stock).

Box 3 Table 1: Developments in SME Lending

	% Change in Lending Q1 2010 to Q2 2012		Cumulative Gross SME Lending Flows Q2 2010 - Q2 2012, € million		% Share of SME Lending in Total Lending to Enterprises
	SME	All Enterprises	New Lending Draw Downs	Estimated Amortisation	Q2 2012
Construction and Real Estate	-18.0	-4.5	1,814	6,207	59.2
Agriculture	-13.3	3.9	1,234	1,819	92.4
Manufacturing	-14.2	-9.4	426	759	43.3
Wholesale/Retail Trade & Repairs	-17.5	-8.4	903	2,272	72.7
Hotels and Restaurants	-16.9	-8.3	358	1,810	76.4
Business and Administrative Services	-13.1	-8.8	667	1,024	52.8
Other	-16.5	-25.8	1,189	2,302	66.0
Total	-16.5	-7.7	6,591	16,192	62.7

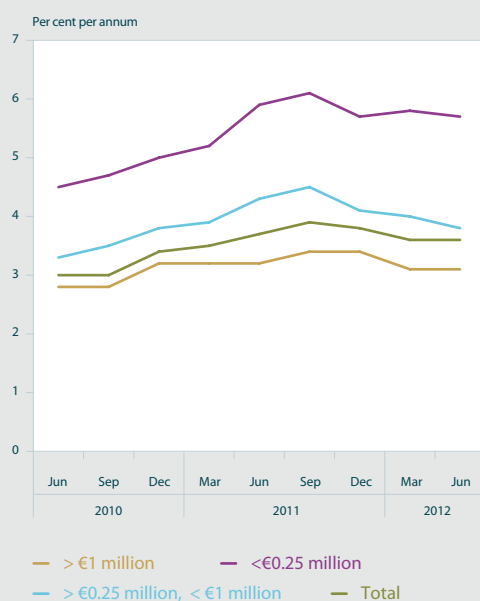
Source: Business Credit and Deposits, Central Bank of Ireland.

These trends reflect both supply and demand dynamics. The weakness of domestic demand, particularly the collapse in investment during the crisis, has led to more suppressed need for longer-term funding across many sectors as opportunities for expansion were constrained. Requirements for financing working capital would also have fallen somewhat, but are reported by all surveys of SME demand for finance to remain significant¹². On the supply side, managing the overhang of legacy issues, reappraisal of risk appetite, potential lack of underwriting skills, wider developments in the Irish and international economies and the overall need to deleverage may all feature as issues restricting supply. The reappraisal of risk appetite in particular may take a number of forms. Banks may restrict credit to businesses who themselves have a highly leveraged or weak balance sheet, and this may be happening more in the current climate than in previous years. At the same time, even viable businesses are facing tighter credit conditions than during the pre-crisis period.

¹² Mazars SME Lending Demand Study, Oct 2011-March 2012, *Dept. of Finance*, July 2012; Survey on the Access to Finance of SMEs in the euro area, Oct 2011-March 2012, *ECB*, April 2012.

Box 3: Tracking Developments in SME Credit*By Martin O'Brien, Statistics Division*

Retail interest rates offered on lending to SMEs, when compared with those rates offered to larger businesses and across countries, can show the impact of some of these supply side factors on the credit conditions facing SMEs in Ireland. SMEs are viewed as more risky businesses to lend to both in Ireland and elsewhere. Box 3 Chart 2 shows the interest rates prevailing on new business loan agreements between banks in Ireland and non-financial corporations by the size of the loan. Typically, loans to SMEs are in the smaller value category (up to €250k), whereas loans to larger businesses are in the larger categories. New NFC loan agreements up to €250k value in Ireland have, since mid-2010, had an average premium of 227 basis points above agreements with a value over €1 million, and 190 basis points above the weighted average for all new NFC loan agreements. While this pattern is also evident in other countries, the premium for agreements up to €250k over those greater than €1 million for the euro area as a whole has only averaged 173 basis points since mid-2010. This difference of 54 basis points between the average Irish and euro area experience since mid-2010 would reflect the combined influence of the relative perceived riskiness of lending in the Irish market given current trading conditions and the relative health of Irish firms' balance sheets, the relatively higher yield on sovereign debt, and potentially any internal or funding constraints affecting Irish resident credit institutions' pricing decisions.

Box 3 Chart 2: Interest Rates on NFC New Business Lending by Size of Loan

Source: Central Bank of Ireland.

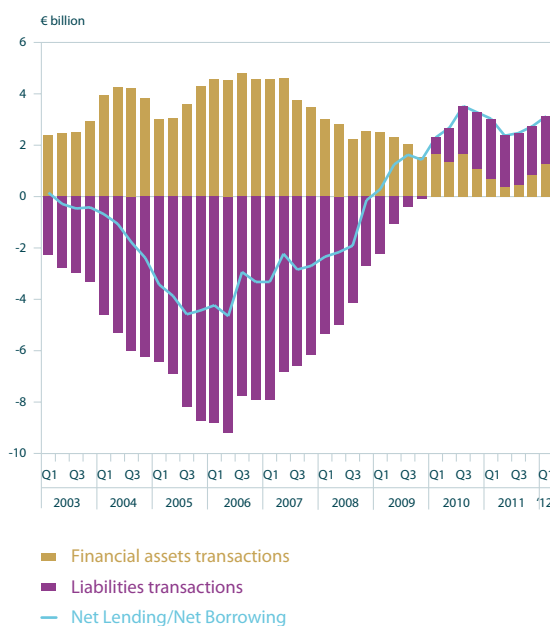
This applies only to the extent that pricing is being used by credit institutions in a manner which would lead to the market for credit being cleared, i.e. where all demand for credit at a given interest rate is being met. Alternatively, credit institutions could be rationing credit, whereby all demand at the prevailing interest rates is not being met. Examining in full these underlying differences and any potential need for, and impact of, policy decisions is an important area of current and future research.

14 'Insurance technical reserves' include life assurance policies and pension funds.

Household financial assets transactions as a four-quarter moving average are depicted in Chart 26. The chart reveals that household investment in financial assets recovered further over Q1 2012, increasing from €0.8 billion to €1.3 billion. Households continued to disinvest in ‘currency and deposits’ during Q1, albeit to a much lesser extent than in previous quarters. Investment by households in ‘insurance technical reserves’ was largely unchanged over the quarter; while investment in ‘shares and other equity’ increased slightly for the second consecutive quarter.

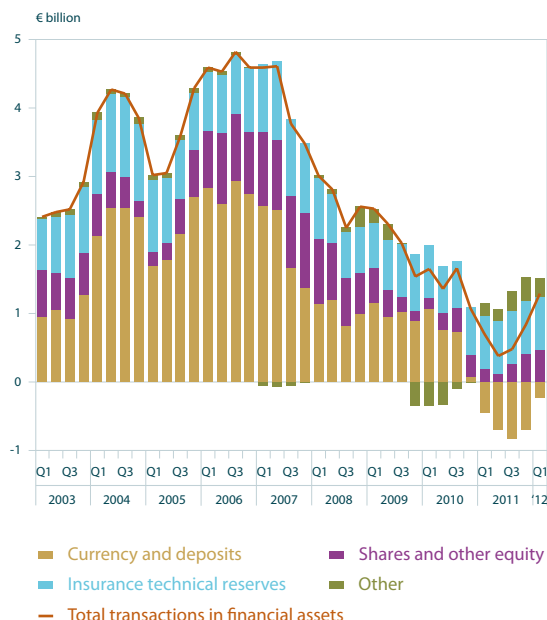
Combining household saving and gross capital formation data from the CSO's non-financial accounts (i.e. the real side of the economy) with households' transactions data from quarterly financial accounts, allows for a decomposition of how households use their savings¹⁵. Chart 27 reveals that household saving increased for the third consecutive quarter during Q1 2012, when measured as a four-quarter moving average. At Q1, savings stood at €3.3 billion, an increase of €0.2 billion compared with the previous quarter. The increase in savings was largely as a result of increased debt reduction during the quarter, as well as a further recovery in investment in financial assets. Investment in gross capital formation by households continued to remain relatively low however, over the quarter.

Chart 25: Household Net Lending/Borrowing, Four-Quarter Moving Average



Source: Quarterly Financial Accounts, Central Bank of Ireland.

Chart 26: Transactions in Households' Financial Assets, Four-Quarter Moving Average



Source: Quarterly Financial Accounts, Central Bank of Ireland.

15 The derivation of savings from a non-financial accounts perspective and a financial accounts perspective is elaborated upon further in Cussen, O'Leary, Smith (2012), 'The Impact of the Financial Turmoil on Households: A Cross Country Comparison', Central Bank of Ireland. Quarterly Bulletin No. 2.

Floating rate mortgages, which include standard variable rate, tracker rate, and mortgages with a fixed rate up to one year, accounted for 89 per cent of the outstanding amount of loans for house purchase on-balance sheet at end-June 2012, a 2 percentage point increase from end-March. A further shift into floating rate mortgages, particularly at standard variable rates, has been evident in recent months, with the overall decline in mortgages over the first half of 2012 being driven by a fall of €2.2 billion in fixed rate mortgages while floating rate mortgages rose by €1.4 billion. Tracker mortgages accounted for 49 per cent of outstanding loans for house purchase at end-June 2012, following an annual decline of 4.4 per cent.

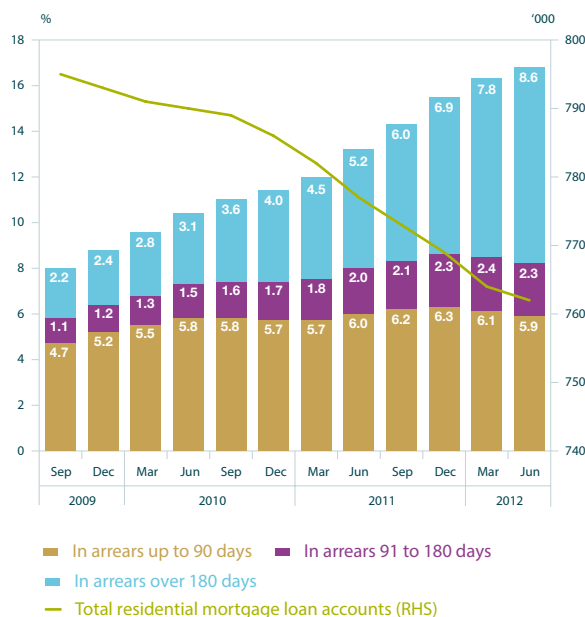
These developments reflect the effective interest rates in the market at the moment, with new business fixed rates continuing to be in a range of 110 to 134 basis points higher than new business floating rates, as has been the case since 2011. It also follows from the fact that certain products (e.g. trackers) are no longer available, and most new or renegotiated mortgages are being offered on a standard variable rate basis.

Considering the distribution of loans for house purchase by credit institutions in Ireland based on the purpose of the property, loans for principal dwelling houses (PDHs) continued to account for approximately three quarters of all mortgages at end-June 2012, with the remainder predominantly comprised of buy-to-let (BTL) mortgages. The annual rate of decline in PDH mortgages has been increasing in recent quarters, reaching 2.3 per cent in Q2 2012, whereas BTL mortgages have eased to 1.8 per cent.

Activity in the housing market remains relatively depressed with household income and conditions in the labour market remaining challenging. The number of principal dwelling mortgage accounts¹⁶ that are in arrears over 90 days rose to 10.9 per cent at end-June 2012 from 10.2 per cent at end-March and 9.2 per cent at end-2011. The number of PDH mortgage accounts outstanding fell by 7,422 over the first six months of 2012 (1 per cent), with the number of mortgages in arrears over 90 days rising by 12,306 (17.3 per cent). The latter development is dominated by a rise in mortgage accounts in arrears over 180 days (+12,578), as for the first time since this series began in 2009, there was a net decrease of 272 mortgage accounts in arrears of 91-180 days during Q2 2012. Combined with developments in shorter term arrears of up to 90 days over the first half of 2012, the number of mortgage accounts in arrears up to 180 days has actually declined by 3,345 during the period. This would suggest that in the most recent months fewer mortgages are

transitioning into arrears, but that the resolution of longer term arrears has not progressed substantially, as a significant portion of those previously in arrears of 91-180 days are now categorised in arrears of over 180 days.

Chart 29: Principal Dwelling Mortgage Accounts and Proportion in Arrears



Source: Residential Mortgage Arrears and Repossessions Statistics, Central Bank of Ireland.

Households' borrowing costs have continued to fall gradually over the past year. The weighted average interest rate on outstanding mortgage loans with an original maturity over five years¹⁷ stood at 2.86 per cent in July 2012, representing a 56 basis points fall since September last year. The corresponding interest rate in the euro area has fallen 20 basis points since September 2011, standing at 3.72 per cent at end-July 2012. The average interest rate applicable to the outstanding volume of mortgage credit in Ireland typically reflects changes in the ECB's main refinancing rate, owing to the high proportion of tracker and analogous variable rate mortgage products in the domestic market.

¹⁶ This refers to all PDH mortgage accounts within the State, covering both resident credit institutions and other mortgage providers which are both resident and non-resident.

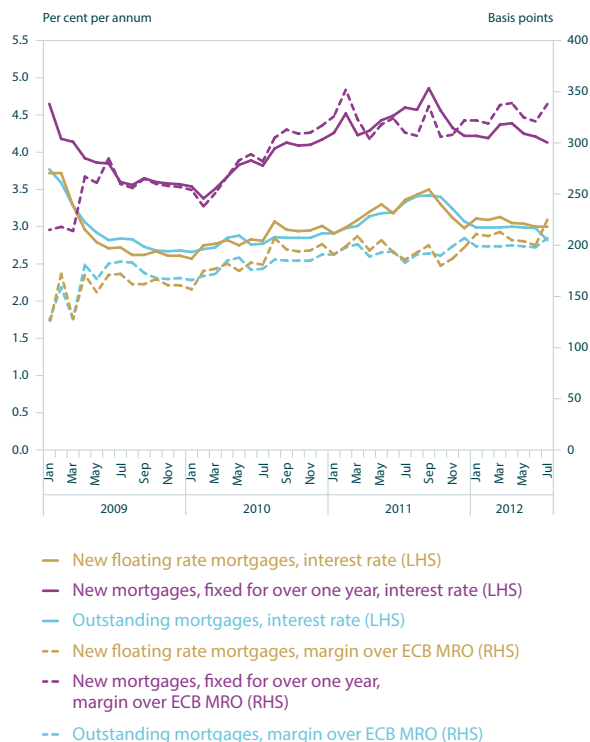
¹⁷ Mortgages with an original maturity of over five years account for over 99 per cent of total mortgage loans.

Interest rates on outstanding loans to households for consumption and other purposes continued to fall, with rates consistently declining over the past year to stand at 5.79 per cent at end-July 2012. Interest rates on short-term loans for consumption and other purposes¹⁸ with an agreed maturity up to one year were 8.95 per cent at end-July. The equivalent euro area interest rates on short-term loans for consumption and other purposes have fallen over the last number of months, declining 40 basis points since October 2012 to 7.78 per cent at end-July 2012. In terms of interest rates on longer-term loans with an original maturity of over five years the weighted average reported by Irish resident institutions was 4 per cent at end-July 2012, compared with a rate of approximately 5.1 per cent reported by euro area credit institutions.

Regarding new business, the weighted average interest rate on new loans for house purchase with either a floating rate or up to one year initial rate fixation was 3 per cent in July 2012. Loans in this instrument category accounted for circa 90 per cent of new mortgage business since the beginning of the year. In the euro area, loans with either a floating rate or up to one year initial rate fixation accounted for just over 30 per cent of the volume of new mortgage business since the beginning of the year.

In relation to loans to households for non-housing purposes, the weighted average interest rate reported by Irish resident credit institutions on new business was almost 7 per cent in July 2012. However, new business volumes in this category have been particularly low over the past number of months, resulting in pronounced volatility in the corresponding interest rate series.

Chart 30: Mortgage Interest Rates to Households



Source: Retail Interest Rate Statistics, Central Bank of Ireland.

¹⁸ Interest rates on short-term loans for consumption and other purposes include both overdrafts and credit card debt.

Developments in the International and Euro Area Economy

Overview

There have been tentative signs of stabilisation in the global economy, which had slowed markedly during the first half of 2012. Nevertheless, the recovery in advanced economies is expected to be subdued, reflecting the ongoing adjustment to imbalances accumulated in the years leading up to the financial crisis and uncertainties created by the euro area sovereign debt crisis. Emerging market economies appear to have weathered the financial crisis storm fairly well but there is some evidence of a moderation in growth on account of weaker exports – a reflection of soft external demand in most major economies. Inflationary pressures are likely to be restrained by excess capacity in advanced economies. Despite falling annual rates of inflation in several emerging markets, underlying pressures could resurface if commodity prices return to levels noted earlier in the year. There has been an improvement in financial market sentiment, largely on account of further policy measures announced by major central banks. The ECB announced its intention to undertake Outright Monetary Transactions (OMTs) in order to address the malfunctioning in euro area bond markets, while the US Federal Reserve announced additional large-scale asset purchases.

The global economy experienced a widespread decline of confidence which was driven by a combination of relatively disappointing economic data in a number of countries, especially from the euro area, and negative investor reaction. Estimates of the global growth outturn for 2012 have been revised downwards by the IMF and OECD in their World Economic Outlook and Interim Economic Assessment, respectively. Both institutions note a number of reasons to be cautious about global activity which could threaten the outlook for the remainder of this year and 2013, including uncertainties created by the euro area sovereign debt crisis, the potential for further increases to already high oil prices, uncertainty about the degree of future fiscal constraint in the United States, and further declines in consumer confidence linked to persistent unemployment.

Turning to the advanced economies, growth in the United States continued to moderate in the second quarter of 2012, partly on account of weakening consumption growth, with only a slight improvement in the labour market.

Following a strong start to 2012, Japanese real GDP increased more moderately in the second quarter of the year, as private consumption and public spending slowed. Like the other advanced economies, the UK has experienced a sharp rise in the burden of debt for some households as well as a weak housing market. Across all the advanced economies, fiscal tightening and weak global demand will adversely affect the growth prospects into next year and beyond. Emerging economies have also shown some moderation in growth on account of weaker internal and external demand, albeit remaining solid. Emerging economies, despite their resilience, are not decoupled from advanced economies and the recent flow of weak global trade indicators implies downward risks to world trade growth in the second half of the year.

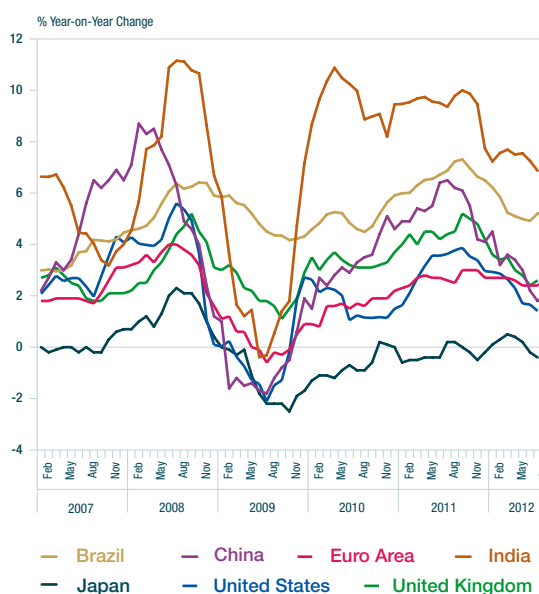
Global inflation has continued to ease over the past year in response to receding commodity prices in the first half of the year. Inflation in the OECD countries declined to 1.9 per cent in July 2012 from 3.1 per cent in July 2011. Ample spare capacity exists in advanced

Table 1: Changes in Real GDP in Selected Economies

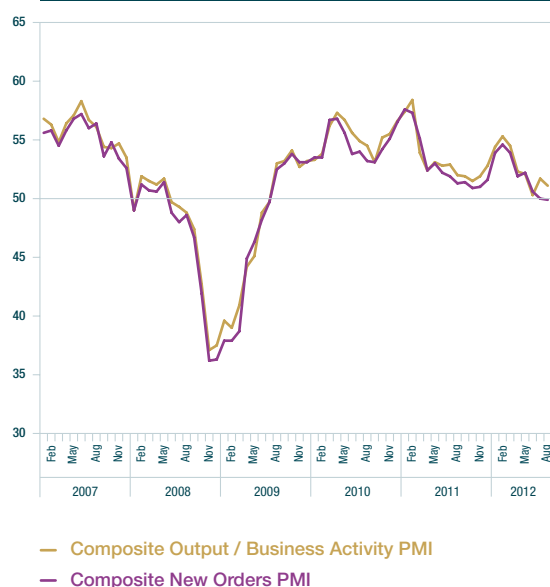
	Percentage Change		
	2011	2012 ^f	2013 ^f
Global	3.9	3.5	3.9
United States	1.7	2.0	2.3
Euro Area	1.5	-0.3	0.7
United Kingdom	0.7	0.2	1.4
China	9.2	8.0	8.5
Japan	-0.7	2.4	1.5

Source: IMF World Economic Outlook Update, July 2012.

economies and well anchored inflation expectations have helped to mitigate price pressures. In emerging economies, inflation rates also declined in the first half of the year. Future commodity price developments will be crucial for the global inflation outlook which continues to be surrounded by considerable uncertainty. The risks to the outlook for global inflation are broadly balanced but depend largely on oil price developments. Upside risks from this source may be partly offset by the possibility that downside risks to global growth materialise and that the amount of slack in the global economy is greater than currently assumed.

Chart 2: Selected Global Inflation Rates

Source: Thomson Reuters Datastream.

Chart 1: Global Purchasing Managers' Index

Source: Markit.

Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

Section 1: Euro Area

Economic Growth – Recent Developments

On a quarterly basis, euro area GDP contracted by 0.2 per cent in the second quarter of 2012 following a flat return for the first three months. Domestic demand and changes in inventories contributed negatively, while net trade continued to provide a positive impetus to growth. Activity was uneven across member countries with indications that the weakness may be spreading from the periphery. Most notably, German GDP rose by a larger than expected 0.3 per cent quarter-on-quarter in the second quarter, but

Table 2: Contributions of Expenditure Components to Change in GDP (Q-on-Q)

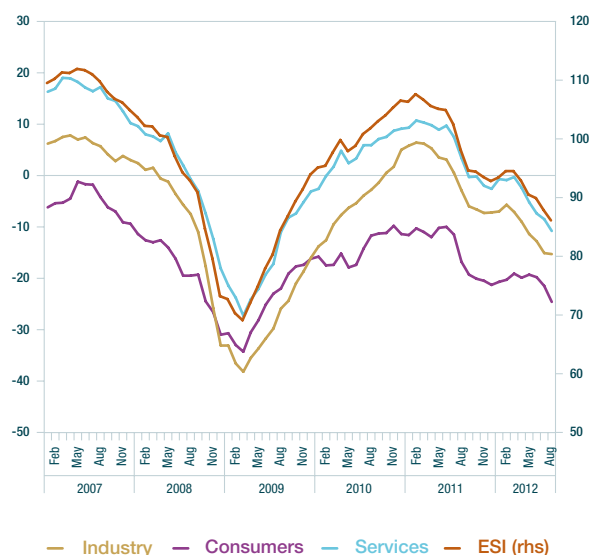
	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q1
Consumption	-0.2	0.1	-0.3	-0.1	-0.1
Government	0.0	0.0	0.0	0.0	0.0
Investment	0.0	-0.1	-0.1	-0.3	-0.2
Inventories	0.2	-0.3	-0.5	-0.1	-0.2
Exports	0.5	0.6	-0.1	0.3	0.6
Imports	-0.2	-0.2	0.6	0.1	-0.4
GDP	0.1	0.1	-0.3	0.0	-0.2

Source: Eurostat.

leading indicators suggest economic growth may falter in the third quarter. French GDP remained unchanged at 0 per cent for the third consecutive quarter, avoiding an anticipated contraction thanks to a mild increase in investment and exports. Offsetting modest growth in the core, Greece, Italy and Spain contracted by 6.2 per cent, 0.7 per cent and 0.4 per cent respectively over the quarter.

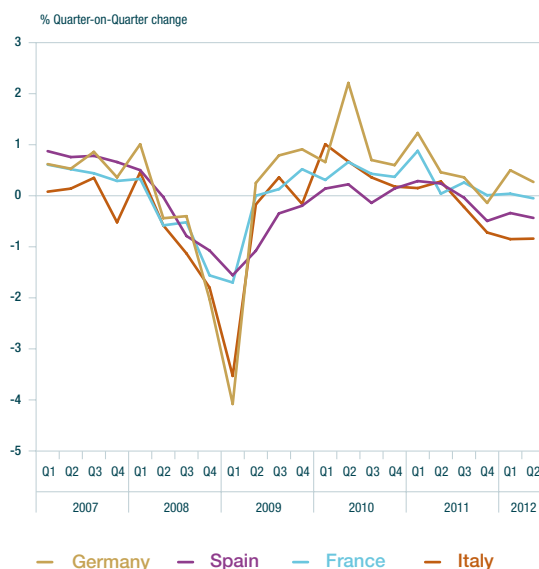
Higher-frequency data, such as industrial production and retail trade, point to a loss of euro area growth momentum towards the end of the second quarter. The latest survey indicators show that sentiment has been

Chart 4: Economic Sentiment Indicator & Selected Components



Source: European Commission.

Chart 3: Euro Area GDP Growth



Source: Thomson Reuters Datastream

deteriorating across almost all countries. The EU Commission's Economic Sentiment Indicator (ESI) decreased two points to 87.9 for the euro area with lower confidence feeding in from all sectors. The declines were particularly evident in Germany (-3.7) and France (-2.3). These declines can be attributed to falls in production expectations as well as a more negative assessment of the current level of overall order books and increasing stocks of finished products.

Weak labour market developments meant that euro area unemployment remained at a record high of 11.3 per cent in July. On the

other hand, survey evidence suggests that employment is likely to decline further with a higher likelihood of discouraged workers withdrawing from the labour force. This lends further support to an assessment of weakening demand conditions. In addition, unemployment remains especially high among the young in the euro area periphery (See Box A).

Trade flows stabilised in the first quarter of 2012 after a contraction in the final quarter of 2011. Exports increased by 1.0 per cent quarter-on-quarter, while the rate of decline in imports slowed to 0.2 per cent. Both imports and exports weakened again in the second quarter. Monthly trade flow data indicate that trade in goods rebounded somewhat in June after very weak reports for April and May. Against the backdrop of prevailing uncertainty about the strength of the global recovery, survey data relating to euro area export activity for the third quarter are likely to show that this rebound may have been a temporary bounce.

Economic Growth – Outlook

Following the contraction in euro area growth in the second quarter, available indicators for the third quarter point to weaker growth prospects and highlight prevailing uncertainty. For example, the PMI composite output index has remained below 50, indicating a contraction in output, and pointing to further delays in the recovery. This is consistent with the September ECB staff forecast which projects a real GDP contraction in the euro area of between 0.6 per cent and 0.2 per cent for 2012 with a gradual return to growth next year. The projections assume that financial conditions in the euro area periphery will gradually ease through 2013. The risks surrounding the economic outlook for the euro area are noted to be on the downside. They relate, in particular, to the tensions in several euro area financial markets and their potential spillover to the euro area real economy. Downside risks also relate to possible renewed energy price increases over the medium term.

Box A: Euro Area Unemployment

By Mary Keeney¹

Euro area unemployment reached a record high in June² and the seasonally-adjusted unemployment remained at 11.3 per cent through July 2012.³ This compares with 10.1 per cent in July 2011. Eurostat estimates that the number of jobless persons in the single currency bloc now exceeds 18 million.

Across Member States, Spain and Greece are the worst performers with total unemployment rates above 20 per cent (Figure 1). The number of jobless persons in Italy and France also remains at worrying levels above 10 per cent, as businesses are reluctant to hire workers amid growing political and economic uncertainty in the euro area's two largest economies after Germany. Compared with a year ago, the unemployment rate fell in five Member States, increased in twelve and was unchanged in Slovenia. The only significant fall in the rate between the second quarters of 2011 and 2012 was observed in Estonia, where the economy is supported by strong electronics and information technology sectors and employment increased most. The highest increases in unemployment were registered in Greece, Spain and Cyprus. Over the year to July 2012, the unemployment rate for males increased from 9.8 per cent to 11.3 per cent in the euro area. The female unemployment rate stands marginally higher at 11.4 per cent in June 2012 compared with 10.4 per cent a year ago.

¹ Monetary Policy Division.

² The June 2012 outturn was the highest since the data series started in 1995.

³ The June figure was revised upwards from 11.2 per cent to 11.3 per cent by Eurostat.

Box A: Euro Area Unemployment

By Mary Keeney¹

Youth unemployment – joblessness among under-25s – rose to 22.6 per cent across the euro area in July 2012 and remains a concern as it is double the headline rate. The lowest rate of youth unemployment was in Germany and the highest rate was in Spain. The International Labour Office (ILO) projects that 15-to-24 year-olds in the euro area will face jobless rates of nearly 22 per cent in 2013 that will dip modestly to 21.4 per cent in 2017. To put this in context, the US youth unemployment is forecast to fall from 17.4 per cent this year to 13.3 per cent in 2017. Uncertainty surrounding these forecasts depends on the rate of discouragement to cease job searching and exit the labour force. The ILO find that temporary and long-term unemployment early in a person's work life will have lasting effects on finding a job with the proper career perspectives related to a person's competences and skills. The productivity and wage effects of early adverse labour market conditions have been noted 10 to 15 years after first entry to the labour force.⁴ Such developments in youth labour markets may also tally with findings from other indicators as part-time work among youth has grown faster than for those aged over 25, and increasingly appears to be driven by a lack of alternative employment opportunities for young people.

At the sectoral level, the latest figures show that employment in construction continues to decline sharply, while declines in industry (excluding construction) and services have been less pronounced. With already weak euro area business confidence softening further across all sectors in Q3, forward-looking labour market indicators suggest that the near-term outlook for the euro area labour market is rather weak, as subdued growth prospects are exerting considerable downward pressure on rates of employment.

Chart 1: Unemployment Rates in the Euro Area, July 2012



Source: Eurostat.

Note: Seasonally adjusted.

In addition, public sector employment may be reduced in some Member States and the uncertainty surrounding the economic outlook may be increasing private sector employer reluctance to reverse layoffs. Accordingly, EU Commission sentiment surveys which include employment expectations in EU industry and services sectors declined in the first quarter of 2012 and have remained at low levels through the second quarter. The Commission forecasts that the euro area unemployment rate will remain high over the coming months and continue to exceed long-term averages.

⁴ See <http://www.ilo.org/global/research/global-reports/global-employment-trends/youth/2012/lang-en/index.htm>

Inflation – Recent Developments

Increased indirect taxes and administered prices in some countries together with higher commodity prices, particularly oil, have contributed to elevated headline consumer price inflation in the euro area since late 2010. Euro area annual HICP inflation was 2.6 per cent in August, according to preliminary estimates from Eurostat. This interrupts a gradual downward trend that emerged since inflation peaked at 3.0 per cent year-on-year in the final quarter of 2011. Reduced contributions from the food and energy components had predominantly driven this downward trend. Accordingly, the annual rate of HICP inflation excluding energy and food has remained relatively moderate and stable over that period. However, this measure of core inflation reached its highest level in over three years in July.

Price pressures in the production chain have been subdued. Industrial producer price inflation (excluding construction and energy) remained unchanged at 0.9 per cent year-on-year in July, the lowest rate of change since the first quarter of 2010. Declines in producer prices have been broad based across all sub-components in recent months. Price survey measures, meanwhile, continue to point to weak price pressures on average. The PMI composite input price index has declined sharply since peaking in March 2011 but stabilised in August above 50; the level that distinguishes falling from rising prices. The PMI composite output price index has been below 50 for eleven out of the last twelve months. Meanwhile, against a background of weak economic activity and deteriorating labour market conditions, there was a moderation in total hourly labour costs and compensation per employee in the euro area in the first quarter of 2012. However, unit labour costs are still increasing, reflecting a decline in labour productivity growth.

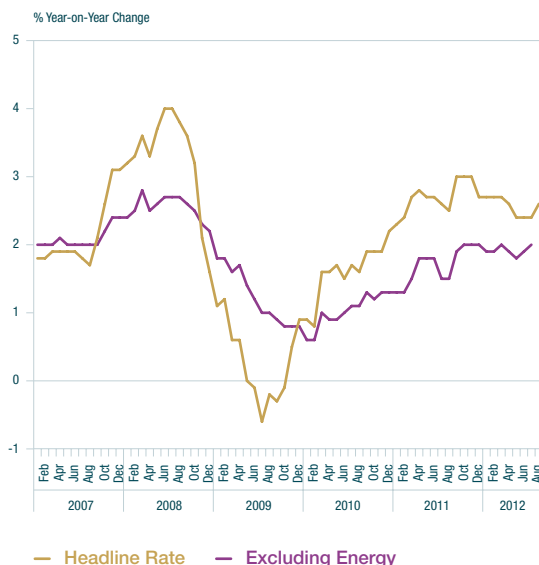
Oil and Other Commodity Prices

Brent crude oil prices rebounded sharply in July and early August, from an 18-month low recorded in June, reflecting a re-emergence of supply concerns due to increased geopolitical tensions in the Middle East, outages in the North Sea and seasonal increases in demand. For the remainder of August and early September, Brent crude oil was trading in a narrow range of between \$112 and \$116 per barrel. Price developments for other commodities have been mixed. While prices of base metals have generally declined slightly, food prices have risen sharply, with corn, soybeans and wheat increasing in July on the back of the worst drought in the United States in over 25 years.

Inflation – Outlook

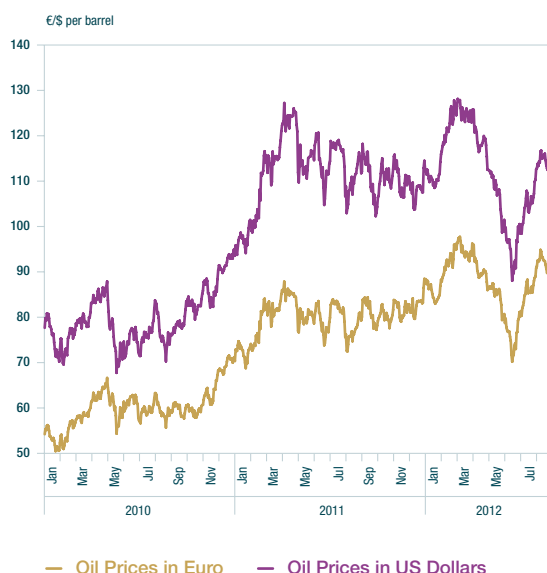
According to the September 2012 Eurosystem staff macroeconomic projections for the euro area, underlying price pressures are expected to remain moderate and headline HICP inflation is expected to fall below 2 per cent in 2013. Annual HICP inflation is forecast to be in a range of between 2.4 per cent and 2.6 per cent in 2012 and between 1.3 per cent and 2.5 per cent in 2013.

Chart 5: Euro Area Inflation



Source: Thomson Reuters Datastream.

Chart 6: Oil Prices – Brent Crude



Source: Thomson Reuters Datastream.

Section 2: External Environment

United States

The second estimate of real GDP indicated that US growth continued to moderate in the second quarter of 2012, with GDP expanding by 1.7 per cent in annualised terms, down from 2.0 per cent growth in the first three months of 2012. The expansion in real GDP was supported by positive contributions from personal consumption, fixed investment and net exports, while government spending and inventories continued to act as a drag on growth. The slowdown in growth in the second quarter primarily reflected weaker consumer spending which grew by 1.7 per cent in annualised terms in the three months to June, from 2.4 per cent in the first quarter of 2012.

In their July WEO 2012 Update, the IMF forecast that the US economy will expand by 2.0 per cent this year, with growth of 2.3 per cent next year. The outlook continues to be surrounded by high uncertainty, owing primarily to the scheduled increases in taxes and reduction in spending (the so-called “fiscal cliff”) due in early 2013, and potential negative spillovers from the euro area crisis.

Recent developments in the US labour market have been more mixed following weak monthly non-farm payrolls throughout the second quarter. The unemployment rate has fallen slightly to 8.1 per cent but monthly payroll figures for the third quarter have been below those recorded at the start of the year. Business and consumer sentiment indicators have also been relatively mixed in recent months with the composite ISM rebounding in July following June’s sharp decline. US consumer confidence indicators have generally been on a downward trend amid the heightened uncertainty surrounding the outlook. Furthermore, the housing market remains depressed, although there have been some tentative signs of improvement with recent data indicating that house prices rose on a yearly basis for the first time in almost two years in June.

Table 3: US Contributions to GDP Growth

	2011 Q3	2011 Q4	2012 Q1	2012 Q2
Consumption	1.2	1.5	1.7	1.2
Government	-0.6	-0.4	-0.6	-0.2
Fixed Investment	1.8	1.2	1.2	0.6
Inventories	-1.1	2.5	-0.4	-0.2
Exports	0.8	0.2	0.6	0.8
Imports	-0.8	-0.9	-0.5	-0.5
GDP	1.3	4.1	2.0	1.7

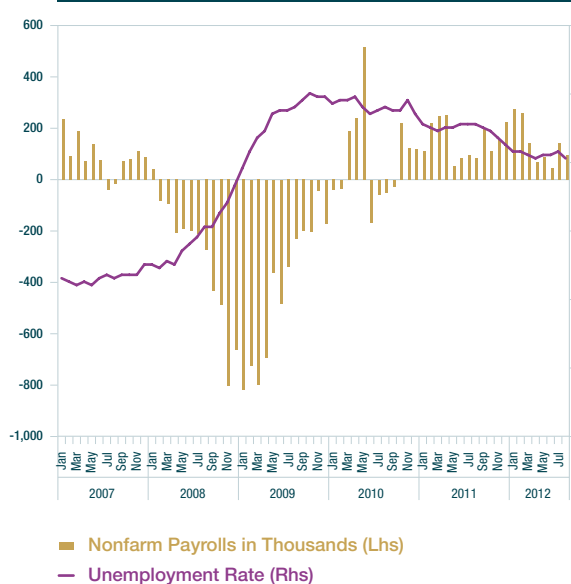
Source: Bureau of Economic Analysis (BEA).

The Federal Reserve's Federal Open Market Committee (FOMC) maintained the target range for the federal funds rate at the historically low level of zero to 0.25 per cent at its meeting in September. Inflation in the US has declined since earlier in the year mainly owing to lower commodity prices with annual CPI inflation at 1.4 per cent in July. Following its meeting in September, the FOMC announced its intention to further increase its policy accommodation by purchasing additional mortgage-backed securities at a pace of \$40 billion per month. The FOMC also extended its forward guidance by stating that 'exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015'.

United Kingdom

The weakness in economic activity since the start of the year continued during the second quarter of 2012 with GDP contracting by 0.5 per cent following a contraction of 0.3 per cent during the first quarter of 2012. The jubilee celebrations impacted GDP data although no data adjustment was made by the UK Office of National Statistics (ONS) for these events. Otherwise, continuing fiscal consolidation, heightened levels of economic and financial uncertainty in the euro area, and weakness in the housing market limit the likelihood of a more broadly based economic recovery taking hold. However, the labour market continues to show some resilience given the persistent weakness in economic activity. Unemployment declined marginally from 8.2 per cent during the first quarter of 2012 to 8.0 per cent during the second quarter of 2012. The detachment in GDP and unemployment trends during the first half of 2012 adds to the uncertainty in gauging the short and medium term prospects for the UK economy.

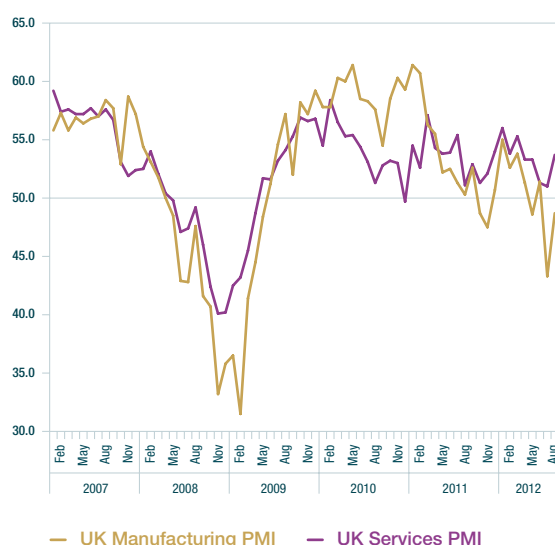
The reduction in price pressures that was evident in the first quarter of 2012 has continued. The Bank of England Inflation Report for August detailed how the near-term outlook for inflation is lower compared to the second quarter of 2012.

Chart 7: US Labour Market

Source: Bureau of Labor Statistics, US Department of Labor.

During July, the Bank of England announced a further £50 billion in asset purchases bringing the total amount of asset purchases since the first quarter of 2009 to £375 billion. The decision to renew asset purchases reflects, amongst other factors, a continued easing of price pressures and the deterioration in sentiment data for the UK and many of its trading partners.

Chart 8: PMI Indicators for the UK



Source: Markit.

Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

Japan

Real GDP growth in Japan fell sharply to an annualised 0.7 per cent in the second quarter, following annualised growth of 5.3 per cent in the first three months of 2012. Real GDP growth in the first quarter was driven by strong public investment and private consumption, which were boosted by reconstruction-related spending and by specific measures to stimulate demand for environmentally-friendly cars. Growth moderated in the second quarter, reflecting weaker growth in private consumption and public spending, while softer external demand also weighed on exports. Furthermore, exports have been adversely

affected by the appreciation of the yen. In line with this, industrial production data has been subdued in recent months. The latest forward-looking survey data point to weak economic activity, with the Composite Output PMI Index in contraction territory, at 48.6 in August.

Emerging Asia

Economic activity in emerging Asia slowed in the first half of 2012 owing to weaker growth in advanced economies and softer external demand. According to the IMF's WEO Update released in July 2012, growth in emerging Asia is expected to decline to 7.1 per cent this year from 7.8 per cent in 2011, before increasing to 7.5 per cent in 2013.

In China, real GDP growth continued to moderate, to 7.6 per cent year-on-year in the second quarter of 2012, down from 8.1 per cent in the first three months of 2012. The slowdown in growth was primarily driven by weaker external demand conditions. In addition, the latest monthly data suggest a further weakening, with growth in industrial production, retail sales and exports moderating in July. Forward-looking survey indicators suggest that the slowdown in activity may continue with the composite new orders PMI at 48.7 in August. Inflationary pressures have reduced in China in recent months, however, with annual headline CPI inflation at 2 per cent in August. According to the July WEO forecasts from the IMF, the Chinese economy is expected to grow by 8.0 per cent this year and 8.5 per cent next year.

The Indian economy expanded by 5.5 per cent year-on-year in the second quarter of 2012, up slightly from 5.3 per cent growth in the first quarter of 2012 with growth primarily supported by increased government expenditures. With respect to price developments, India's wholesale price inflation index eased to 6.9 per cent in July, down from 7.25 per cent in June but remains elevated overall. The IMF has forecast growth of 6.1 per cent in 2012 and 6.5 per cent in 2013.

Section 3: Financial Markets

Financial Sector Developments

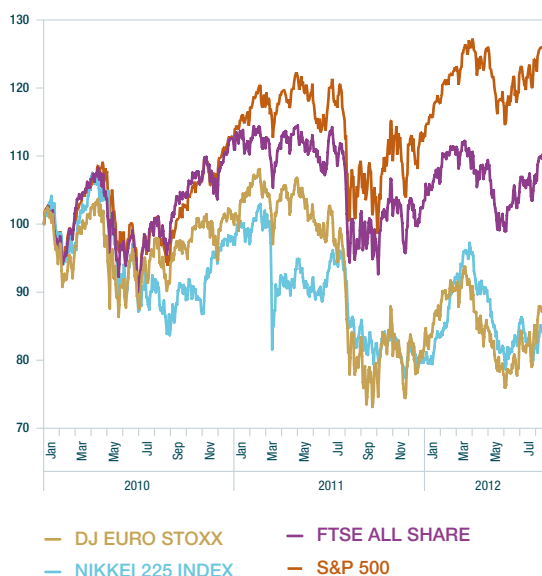
The negative investor sentiment seen during the second quarter of 2012 continued to drive financial market developments in early July. This mainly reflected on-going investor concerns over the global growth outlook and the ability of euro area authorities to effectively address the sovereign debt crisis. Sentiment improved markedly later in July and in early August as the ECB announced plans to create a new facility to undertake outright open market operations with the aim of addressing malfunctioning in the price formation process in the bond markets of euro area countries. Further details of these Outright Market Transactions (OMTs) were announced following the 6 September Governing Council meeting. Growing expectations of further policy stimulus from both the US Federal Reserve and the Bank of England also contributed to positive investor sentiment during August, with the former announcing additional large-scale asset purchases in early September.

Equity Markets

While ongoing concerns over the global growth outlook weighed on international equity prices during the first half of July, indices generally rose later in July and into August amid some better than expected earnings results and investor expectations of further policy measures from major central banks. Equity markets rose quite strongly in late July and early August following an announcement from the ECB of plans to adopt additional measures to address the euro area sovereign debt crisis. Equity prices also received support from growing expectations that other major central banks would provide further policy stimulus, especially following a speech by US Federal Reserve Chairman Ben Bernanke at the Jackson Hole Symposium in late August. Global equity indices were generally higher at the end of August compared to the end of June, with the DJ Euro Stoxx Index up 6.7 per cent, the S&P 500 Index up 3.3 per cent, and the FTSE Index up 2.8 per cent. The Nikkei 225 Index was slightly lower, however, falling 1.9 per cent over the period. Positive sentiment in equity markets continued in early

September following the announcement of further details of the ECB's OMTs and the announcement of additional large-scale asset purchases by the US Federal Reserve. A decision from the German Constitutional Court dismissing an application to prevent German ratification of the ESM Treaty also contributed to positive sentiment in early September.

Chart 9: International Share Price Indices
(end-December 2009 = 100)



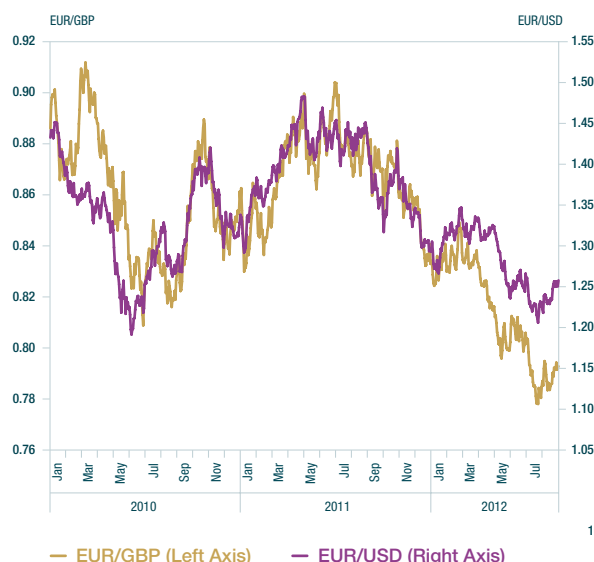
Source: Thomson Reuters Datastream.

Foreign Exchange Developments

The euro maintained its value during the first two months of the third quarter overall, with a depreciation against sterling and the US dollar during July largely reversed in August. Euro depreciation during the early part of July was largely driven by increasing investor concerns over the ability of authorities to resolve the on-going euro area sovereign debt crisis. The euro strengthened later in July, following a statement from ECB President Draghi of possible further measures from the ECB. This positive momentum continued into August as the ECB announced further details of its planned measures. There was some downward pressure on both sterling and the US dollar during this period, with market participants raising their expectations of further policy easing from the Bank of England and

the Federal Reserve. The euro continued to strengthen in early September, recapturing some of its losses against sterling and the US dollar from the second quarter of 2012.

Chart 10: Euro Exchange Rates



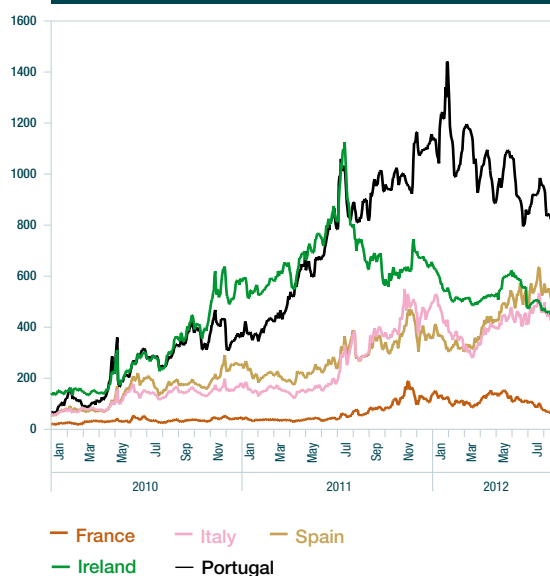
Source: Thomson Reuters Datastream.

Sovereign Debt Markets

Yields on AAA-rated European sovereign bonds generally increased in August, after having fallen to very low levels during the second quarter of 2012 and during early July following an interest rate cut from the ECB and amid safe-haven flows. Yields on some AAA-rated sovereign bonds remained in negative territory despite these rises, however. At the same time, yield spreads over Germany for a number of euro area countries fell quite sharply, initially driven by signals from the ECB in late July that it would adopt further measures to address the euro area sovereign crisis. Yield spreads fell further as more details of the ECB's OMTs were announced following

the August and September ECB Governing Council meetings. The falls were greater at the short end of yield curves, reflecting the ECB's statement that interventions would be focused on these maturities. As such, there was a steepening of the Irish, Portuguese, Italian and Spanish sovereign yield curves. Irish bond yields fell to their lowest level since the country entered the EU-IMF Programme, with successful short-term and long-term issuance during July and August. US Treasury yields stood at around end-Q2 levels at the end of August, with increases early in the period offset by falls in late August. Yields rose again in early September, however, when the US Federal Reserve announced that further asset purchases will focus on mortgage-backed securities.

Chart 11: Selected Euro Area 10-Year Sovereign Bond Yield Spreads over Germany (bps)

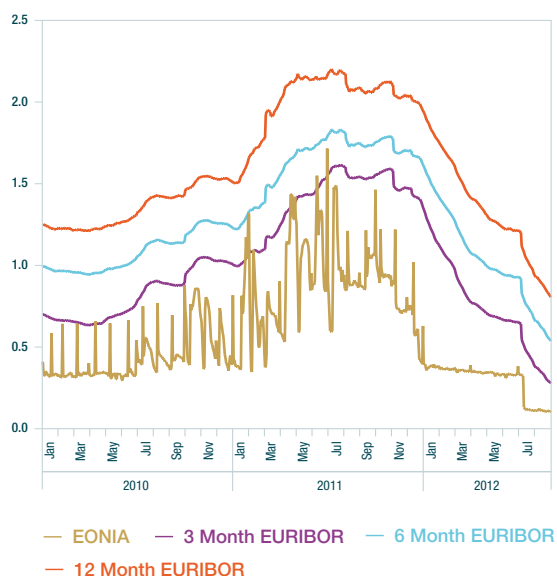


Source: Thomson Reuters Datastream

Money Markets

Unsecured money market rates continued to decline during July and August of 2012, reflecting the 25 basis points interest rate cut announced by the ECB on 5 July. EURIBOR rates fell to new all-time lows across the curve as market participants priced in the possibility of further interest rate cuts by the ECB in the coming months. As a result of the 5 July ECB decision, and reflecting the very large amount of excess liquidity in the overnight money market, the EONIA rate fell to very low levels over the period, standing at around 0.11 per cent at the end of August.

Chart 12: Selected Euro Area Money Market Interest Rates



Source: Thomson Reuters Datastream.

EU-IMF Financial Assistance Programme

– Seventh Review

Overview

The European Union/International Monetary Fund (EU/IMF) Financial Assistance Programme is now just over the half-way point, and despite a challenging external environment, the External Partners¹ concluded at the end of the Seventh Review, in July 2012, that “programme implementation remains strong”.² All Programme conditions and quantitative targets were met in the second quarter of 2012, and two structural benchmarks were observed (one of which ahead of schedule).³ The External Partners also welcomed the Euro Area Leaders’ Summit Statement on 29 June⁴, which included a commitment to “examine the situation of the Irish financial sector with the view of further improving the sustainability of the well-performing adjustment programme”.

Discussions during the Seventh Review focused on the following issues:

- The macroeconomic situation and outlook.
- The first phase of the Financial Measures Programme (FMP).
- Modifications to the deleveraging framework.
- Mortgage arrears resolution strategies (MARS).
- The new Personal Insolvency Framework.

- A roadmap for the Eligible Liabilities Guarantee (ELG) scheme.
- Restructuring plans (financial and operational) for Permanent TSB (PTSB).
- Plans to keep public expenditure on track.

The IMF also carried out an Article IV consultation on Ireland during July.⁵ Attention was paid to competitiveness developments and unemployment, the fiscal consolidation strategy, financial sector reform, and domestic demand issues. The IMF acknowledged the authorities’ “steadfast efforts to address an exceptionally deep banking crisis, establishing strong credibility in policy implementation despite an adverse external environment that has tested confidence and delayed recovery”⁶. It also welcomed Ireland’s return to international capital markets. In July, the National Treasury Management Agency (NTMA) issued Treasury Bills and long-term bonds⁷, totalling €4.7 billion in new funding. This was followed in August by the sale of €1 billion of amortising bonds and a further €0.5 billion issuance of Treasury Bills in September.

Compliance with Financial Sector Conditions

Reforms to restore the health of the Irish financial sector continued in the second quarter of 2012, as set out briefly below.

¹ The European Commission (EC), the European Central Bank (ECB) and the International Monetary Fund (IMF).

² <http://www.imf.org/external/np/sec/pr/2012/pr12256.htm>

³ The submission of an updated restructuring plan for PTSB was a structural benchmark for end-June 2012, while the Fiscal Responsibility Bill (which provides a legal basis for the Irish Fiscal Advisory Council) was published in July, ahead of the end-September 2012 deadline. The full set of future conditions and benchmarks can be found in the updated Memorandum of Understanding: <http://www.finance.gov.ie/viewdoc.aspx?Fn=/documents/Publications/other/2012/EU-IMFprog.pdf>

⁴ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/131359.pdf

⁵ The Mission was carried out from 16-18 July 2012. Article IV Missions are periodic consultations that focus on a more medium to long-term outlook for an economy.

⁶ <http://www.imf.org/external/np/ms/2012/071812.htm>

⁷ This comprised a new five-year bond issue and a re-opened eight-year issue. The weighted average yield on the combined transaction was 5.95 per cent.

The first phase of the FMP was completed. This included an independent asset quality review, a distressed credit operation review, a data integrity validation exercise, an interest income recognition and re-aging project for impaired loans, and a valuation exercise on banks' securities portfolios. The results of this work, and the remedial actions to be undertaken by the banks arising from it, will feed into preparations for the Prudential Capital Assessment Review (PCAR) 2013 stress tests (the timing of which will be aligned with those of the European Banking Authority (EBA)). The Central Bank also intends to carry out a review of capital developments in the PCAR banks⁸ in the later part of this year.

A restructuring plan for PTSB was submitted to the European Commission.⁹ It is proposed to re-organise PTSB into three separate business units, namely a core retail bank, an asset management unit to house certain legacy assets, and a UK residential mortgage operation unit. Outstanding recapitalisation of the bank, under PCAR 2011 requirements, was completed following the separation of Irish Life from PTSB. The former was purchased by the Irish State in June 2012, but will be sold off when market conditions are more suitable.

The Central Bank reviewed lenders' strategies for dealing with mortgage arrears and set out steps to help improve their management of non-performing loans. In addition, the Central Bank developed a set of Key Performance Indicators (KPIs) to monitor progress on addressing mortgage arrears.

It was agreed to adjust the focus of the deleveraging framework from Loan-to-Deposit Ratios (LDR) to an "advanced monitoring framework", and a focus on the remaining parts of the deleveraging plan outlined in the FMP.

Further steps to restructure the credit union sector were taken, with the general scheme of

a Bill, strengthening the regulatory framework for credit unions, published in late June¹⁰. The Bill provides for the establishment of a Restructuring Board, which will work with credit unions to deliver agreement on restructuring proposals, and will also assist in their implementation. These proposals will be subject to Central Bank regulatory approval and the Central Bank will engage its resolution powers as needed, drawing on Resolution Fund resources if required.

The establishment of a new insolvency framework was further advanced, with draft legislation published on the Personal Insolvency Bill at the end of June. This legislation proposes three non-judicial debt settlement procedures and amends the Bankruptcy Act. It is expected to progress to Committee stage in September, for adoption by year-end. Work on putting in place an Insolvency Service (which is expected to become operational in January 2013, or shortly after) also continued.

Other actions undertaken in the second quarter of 2012 included the launch of a pilot mortgage-to-rent scheme in June, and the launch of Release B of the Probability Risk and Impact System (PRISM)¹¹ in May.

Future Financial Sector Commitments

Additional financial sector reforms to be progressed over the coming months include the following:

An "advanced monitoring framework" is being put in place by the Central Bank which will enable it to supervise developments in banks' Net Stable Funding Ratios (NSFR). From the fourth quarter onwards, a quarterly assessment of PCAR banks' progress towards the relevant Basel III Liquidity requirements will be provided by the Central Bank to the External Partners.

⁸ Bank of Ireland, AIB and PTSB.

⁹ This was a structural benchmark for end-June 2012. The plan is currently under European Commission review for compliance with State Aid Rules.

¹⁰ Publication of credit union legislation is a structural benchmark to be completed by end-September 2012.

¹¹ This is a new framework for risk-based supervision of regulated firms in Ireland, including all PCAR banks.

The Central Bank is requiring actions by PCAR banks in relation to credit data and documentation, to be included in the Risk Mitigation Plans of the banks.

Regarding lenders' progress in implementing loan modification strategies, the new KPIs will be used by the Central Bank in assessing the results. The Central Bank also plans to develop a set of Key Performance Indicators for small and medium-sized enterprises (SMEs) by the end of 2012.

Work continues on phasing out the ELG scheme. An inter-agency group has been tasked with the objective of developing a roadmap - by the end of this year - for removing the banking system from the scheme.

Regulations supporting a Resolution Fund Levy¹² are expected to be adopted by the end of September. The rationale for this is to recoup the resources provided by the Exchequer for the resolution of distressed credit unions (all credit institutions will be required to contribute). Regulations will also be introduced under the Deposit Guarantee Scheme (DGS) requiring credit unions to maintain a balance in the Central Bank's Deposit Protection Account (DPA).

Work on the Supervision and Enforcement Bill is also progressing.

Other actions set out in the Memorandum of Understanding / the Memorandum of Economic and Financial Policies to be completed by end-September include:

- Presentation of legislation to establish a statutory credit register to Dáil Éireann.
- The submission of an updated restructuring plan for AIB to the European Commission (for approval under State Aid rules).
- The establishment of a Mortgage Advisory Service to provide professional financial

advisory services to distressed borrowers.

- The establishment of separate management units by PTSB (quarterly performance benchmarks to be set for each unit).

Compliance with Fiscal Targets

Programme implementation on the fiscal front also proceeded in quarter 2 of 2012, with the various quantitative targets met. The cumulative end-June exchequer primary deficit target was met by a margin of €0.9 billion (€8.7 billion, compared with an adjusted ceiling of €9.6 billion¹³), with the outstanding stock of central government debt also coming in below its indicative target (€128.2 billion, compared with a target of €130.1 billion). Similarly, the continuous performance criterion on the non-accumulation of external payment arrears was achieved.

Revenues for the first half of 2012 were higher than projected though these were offset somewhat by overspending, primarily in the health sector and social protection (notably unemployment payments). Measures are being taken to address these health sector overruns.

A Fiscal Responsibility Bill was published in July 2012. This transposes the Treaty on Stability, Coordination and Governance into national legislation, and puts the already operational Irish Fiscal Advisory Council on a statutory footing.¹⁴

Future Fiscal Targets

Looking ahead, for 2012 as a whole, the general government deficit is on track to be within the programme ceiling of 8.6 per cent of GDP. Preparations for Budget 2013 have also begun, with an updated "Medium-Term Fiscal Statement" type document to be published in October, while the budget will be presented in December. At the current juncture,

¹² This is a structural benchmark for end-September 2012.

¹³ The ceiling was adjusted for: (i) the acquisition of Irish Life Ltd from Irish Life and Permanent (ILP) for a consideration of €1.3 billion and (ii) tax revenue and gross PRSI over-performance compared to Technical Memorandum of Understanding (TMU) estimates. Both the primary deficit outturn and the target include the 2012 IBRC promissory note payment as if paid in cash, although it was in fact settled with a government bond.

¹⁴ This was a structural benchmark for end-September 2012. It was completed ahead of schedule.

consolidation measures of €3.5 billion are envisaged for 2013 (€2.25 billion in expenditure adjustments and €1.25 billion on the revenue side). In addition, to anchor the already operational multi-annual expenditure limits, separate legislation will be published by the end of the third quarter of 2012.

Compliance with Structural Reforms

The structural reform agenda was further progressed in quarter 2 of 2012.

A progress report on the sale of State Assets was provided to the External Partners, along with a plan detailing the process for transferring water supply services to the new water utility 'Irish Water'.

The competition law framework was also strengthened, with the enactment of the Competition (Amendment) Act 2012 in July. As a further measure, provision was made for an increase in staff resources at the Competition Authority.

On the labour market front, the Services Pension (Single Scheme and other Provisions) Act 2012 was enacted in July. This reforms the occupational pension entitlements of new entrants into the civil and public service. The implementation of 'The Pathways to Work' initiative continued in the second quarter. Monitoring of the performance of the activation system is also on-going, with an update on progress to be provided by the end of September.

EU/IMF Loan Disbursements to Ireland to Date

The approval process by the European Commission¹⁵ and the IMF¹⁶ was concluded during September, paving the way for the disbursement of €2.6 billion (€1.0 billion from the EU (EFSM/EFSSF), €0.9 billion from the IMF¹⁷, and €0.7 billion from Ireland's other EU bilateral partners¹⁸). Once this tranche has been fully drawn down, a total of €54.8 billion will have been disbursed, representing 81 per cent of the total external financing of €67.5 billion.

¹⁵ The published report can be found here: http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/op115en.htm

¹⁶ The published report can be found here: <http://www.imf.org/external/pubs/cat/longres.aspx?sk=26248.0>

¹⁷ Disbursement of SDR 0.758 billion, equivalent to about €0.9 billion.

¹⁸ UK, Sweden and Denmark.

Signed Articles

The articles in this section are in the series of signed articles on monetary and general economic topics introduced in the autumn 1969 issue of the Bank's Bulletin. Any views expressed in these articles are not necessarily those held by the Bank and are the personal responsibility of the author.

Measuring Shadow Banking in Ireland using Granular Data[†]

Brian Godfrey and Brian Golden^{††}

Abstract

The shadow banking sector played a significant part in the financial crisis between 2007 and 2009, which highlighted the role of shadow banks as financial intermediaries in terms of credit, risk transfer, maturity and liquidity transformation, and funding with bank deposit characteristics. Consequently, the sector has become a focus of attention in terms of proposed reforms to ensure heightened global financial stability. This paper examines the question of measuring shadow banking in Ireland by looking at the behaviour of individual entities, using the definition of the Financial Stability Board (FSB). This is made possible using granular money market, investment fund and financial vehicle corporation data reported by each entity to the Central Bank of Ireland. The paper will provide a framework for analysing shadow banking behaviour using granular data, deriving preliminary estimates of the extent of shadow banking activity within various financial sub-sectors and identifying data gaps that need to be filled.

[†] This paper was presented at the Irving Fisher Conference on 'Statistical Issues and Activities in a Changing Environment' at the Bank for International Settlements in Basel, Switzerland, 28-29 August 2012.

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1. Introduction

Over the past few decades, financial intermediation and leverage have broadened from the traditional realm of regulated commercial banks towards an array of other financial institutions. Collectively, these other intermediaries have become known as the ‘shadow banking system’ (McCulley, 2007). These entities provide alternative sources of funding and investment options for market participants and increase the liquidity of asset markets. Financial innovation hastened the shift to shadow banking and was, in turn, stimulated by it (Cecchetti and Schoenholtz, 2010). The shadow banking system has become a critical part of the infrastructure of the modern financial system but has not been subject to the same levels of oversight and regulation as banks. It has become a significant focus of attention in both official and academic circles as it emerged as one of the main reasons for the financial crisis. Highly leveraged shadow banks with illiquid assets suffered from the loss spiral effect forcing them to deleverage due to higher margin requirements and falling asset prices. At the onset of the financial crisis the future for the shadow banking system appeared uncertain. However, the FSB has reported that it has recovered to its pre-crisis peak, rising to US \$60 trillion worth of assets in 2010 (FSB 2011a).

Much of the recent debate has focused on the definition of shadow banking and the types of activities undertaken by entities classified as part of this sector. The FSB provides a wide-ranging definition that can be narrowed to focus on:

- leverage;
- credit risk transfer;
- maturity transformation;
- liquidity transformation; and
- deposit gathering.

This paper applies the FSB’s definition of shadow banking data to the Irish financial sector. The paper employs granular data on financial vehicle corporations (FVCs), money market funds (MMFs) and investment funds (IFs) available to the Central Bank of Ireland. This bottom-up approach facilitates the classification of entities engaged in shadow banking activities – any top-down definition inevitably excludes entities that engage in shadow banking and/or includes some that do not. The use of granular data sheds light on categories, such as hedge funds and exchange-traded funds (ETFs), where there is some debate as to whether they undertake these activities. However, there are also a number of data gaps that mean a complete assessment is not possible.

The paper focuses on measurement and definitional issues related to shadow banking and provides a framework for analysis. It seeks to classify entities within the shadow banking sector, and does not make an assessment of risk or address other financial stability implications. The paper is structured as follows; Section 2 looks at definitions of shadow banking; Section 3 provides an overview of data sources; Section 4 analyses the shadow banking behaviours of the financial sub-sectors covered; Section 5 provides results of the analysis; Section 6 looks at interconnectedness between shadow banking and banks; Section 7 identifies data gaps and potential improvements; and Section 8 concludes.

2. Defining Shadow Banking

2.1 Literature review

The FSB took a lead last year in directing official efforts in the area of shadow banking. A task force was formed, fulfilling a mandate provided by G20 leaders at their Seoul summit of November 2010¹, which defined shadow banking as “the system of credit intermediation that involves entities and activities outside the regular banking system” (FSB 2011a). The

¹ The G20 communique requested that the FSB develop, in collaboration with other international bodies, recommendations to strengthen the oversight and regulation of shadow banking.

task force saw it as “essential to cast the net wide” but that the focus of attention should narrow to “risks created by maturity/liquidity transformation, flawed credit risk transfer and leverage”. The European Commission tightened the definition in their Green Paper of March 2012², with shadow banking defined as those entities that “operate outside of the banking system and engage in one of the following: accepting funding with deposit-like characteristics, performing maturity and/or liquidity transformation, undergoing credit risk transfer and using direct or indirect financial leverage” and/or engage in activities that “could act as important sources of funds for non-bank entities”, including “securitisation, securitised lending and repurchase transactions (repos)”. Various speeches by central banking and regulatory officials support the FSB definition, including Bernanke (2012), Constâncio (2012), Macklem (2012) and Tucker (2012).

The focus of academic literature following the onset of the financial crisis has tended towards securitisation activities and money market funds. This has fed definitions that confine shadow banking to instruments that essentially substitute for money. Prominent among these is Gorton and Metrick (2010), who define shadow banking in the broadest sense as including “investment banks, money market mutual funds, and mortgage brokers..... repos, and more esoteric instruments such as asset-backed securities (ABSs), collateralised debt obligations (CDOs), and asset-backed commercial paper (ABCP)”. Morgan Ricks (2010) also focuses on these instruments when he defines shadow banking as “maturity transformation that takes place outside of the social contract”. Gennaioli et al (2011) define shadow banking more narrowly as “securitised banking” which “refers to origination and acquisition of loans by financial intermediaries, the assembly of these loans into diversified pools, and the financing of these pools with external debt”. Poznar et al (2010) also

concentrate on securitisation and money market funds, but include credit hedge funds under their definition of “financial intermediaries that conduct maturity, credit, and liquidity transformation without explicit access to central bank liquidity or public sector credit guarantees”.

There remains considerable debate over the definition of shadow banking, for example, whether maturity mismatch is a concern where longer-term assets are liquid. Some literature restricts analysis to particular instruments or factors such as ‘run risk’ or the existence of credit support. Nevertheless, the FSB definition, which was published in late 2011, has garnered a degree of consensus. For the purposes of this paper, the FSB definition of shadow banking behaviour is applied.

2.2 Applying the FSB definition to aggregated data

The FSB definition, though intuitive, poses operational challenges as the behaviours do not readily fit with common statistical classifications. As Table 1 shows, FVCs and MMFs tend to be seen as shadow banks but IFs are classified into categories that are, for the most part, not readily associated with shadow banking activity, i.e. equity funds, bond funds, real estate funds, hedge funds, mixed funds and other (a residual category)³, broken down by open-end and closed-end funds.⁴ There is some debate surrounding hedge funds and ETFs in particular, as the former could be seen as highly leveraged, and the latter are seen to attract investors that put a premium on instant redemption while investing in longer-term and less liquid assets. The extent to which these categories can be regarded as shadow banking is not clear from aggregate data sources. Real estate funds and private equity funds would be expected to engage in maturity and liquidity transformation, investing liquid funds from investors into longer-term less liquid assets. Like ETFs, private equity funds straddle a number of

² European Commission (2012).

³ These fund types are defined according to Regulation (EC) No. 958/2007 of the ECB, 27 July 2007.

⁴ Open-end funds allow the fund to issue and redeem shares/units, allowing investors to withdraw funds. Closed-end funds have a fixed number of shares/units which means that investors must sell shares/units to another investor.

Table 1: Statistical Classifications and Defining Shadow Banking Behaviours

	Leverage	Credit Risk Transfer	Maturity Transformation	Liquidity Transformation	Deposit Gathering
FVCs	√	√	?	√	X
MMFs	?	X	?	?	√
Exchange traded funds	?	?	?	?	X
Equity funds	?	?	?	?	X
Bond funds	?	?	?	?	?
Hedge funds	?	?	?	?	X
Mixed funds	?	?	?	?	X
Real estate funds	X	X	X	X	X
Private equity funds	X	X	X	X	X

the statistical classifications, outlined above. Meanwhile, fund types not readily identified with shadow banking, such as equity and bond funds, may include a minority of entities that engage in leverage or maturity and/or liquidity transformation.

Table 1 also highlights that common statistical classifications within aggregate data may not be appropriate for identifying shadow banking activity. A move to granular data significantly improves analysis of the behaviour of individual entities within these statistical classifications.

In addition, entities themselves choose what category they report under and there can be classification issues for entities on the borderline of fund types. Firstly, deposit-type funding is identified with money market funds rather than bond funds. Where bond funds invest primarily at the lower end of the yield curve, the classification depends on judgement calls as to the quality and liquidity of money market holdings. Secondly, hedge funds are not defined by holdings, unlike other categories, but less precisely by an unconstrained investment strategy and performance fees. Hedge fund holdings overlap with other fund types meaning that some may be classified as mixed funds in particular, and vice-versa. Thirdly, the 'other' fund category, as a residual, may inevitably

cover funds where classification is not straightforward. For FVCs, there is some scope for borderline entities to fall outside the definition, but investigations to date suggest that these would not significantly distort the data. Real estate and private equity funds may engage in one or more of these behaviours but are not part of a credit intermediation process, as is required under the FSB definition.

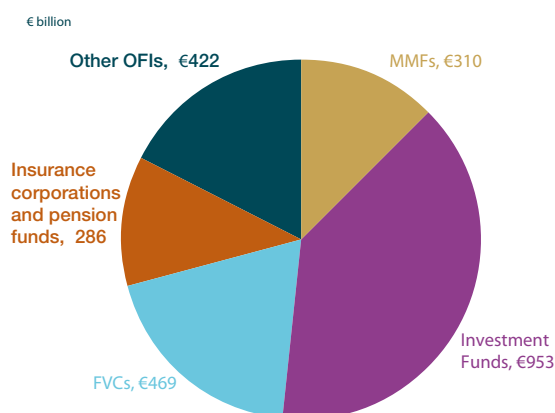
3. Data Sources

3.1 Granular data

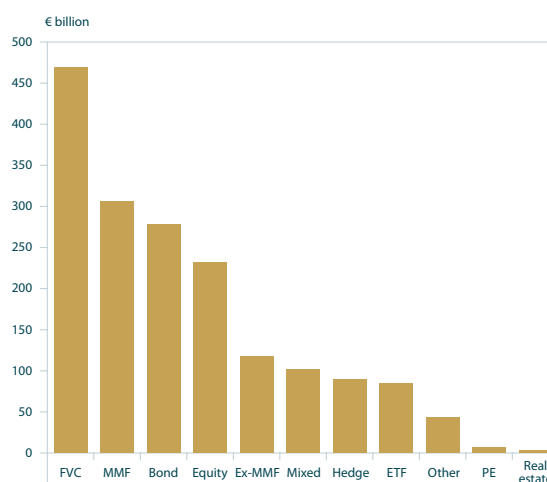
Total assets of the Irish financial sector amounted to €3.5 trillion in Q1 2012, a large multiple of Irish GDP (€129 billion in 2011).⁵ Within this, credit institutions accounted for €1.1 trillion, which means that 69 per cent of activity took place outside of the regular banking system. Granular data are available within the Central Bank of Ireland for IFs, FVCs and MMFs. These entities account for €1.7 trillion of total assets or 72 per cent of non-bank activity⁶, as seen in Chart 1.

⁵ Quarterly Financial Accounts, Central Bank of Ireland:
<http://www.centralbank.ie/polstats/stats/qfaccounts/Pages/Data.aspx>

⁶ Of the remainder, insurance corporations and pension funds account for €286 billion and can carry out banking-type activities but this cannot be quantified at this time. Other miscellaneous intermediaries account for the rest, comprising mostly leasing corporations and treasury management operations, both likely to engage in shadow banking activity, which again cannot be quantified at this time.

Chart 1: Breakdown of Non-Bank Intermediaries in Ireland for Q1/2 2012

Notes: IF, MMF and FVC data ref. Q2 2012.
Other data sourced from Central Bank of Ireland QFA, ref. Q1 2012.

Chart 2: Total assets by Fund types and FVCs in Q2 2012

Stocks, transactions and revaluations are reported on a quarterly basis for IFs and MMFs, alongside standard profit and loss data. Individual securities are reported for equities and bonds. FVC data are provided on a somewhat less comprehensive basis. Bond and equity securities are mostly reported by ISIN codes and so can be cross-referenced against an ECB database – the centralised securities database (CSDB), which has detailed attribute information for each security. However, derivative securities tend not to be ISIN coded. Derivatives are reported according to their mark-to-market value rather than nominal or notional amounts outstanding, which means that only gains and losses at a point in time are measured, rather than underlying exposures.

3.2 Survey additions

Some data gaps have been filled by a number of one-off surveys in Q1 2012, focusing on a more targeted categorisation of instruments and entities through the identification of repurchase agreements, reverse repos, ETFs and private equity funds.⁷ Not all private

equity funds are covered in statistical reporting requirements however, with industry contacts suggesting that at least as many are outside the reporting population.

3.3 Framework for analysis

For the purposes of this paper, shadow banking behaviours are sub-divided into an MMF category and nine IF sub-categories. This facilitates better classification of the granular data. A separate category is included for bond funds that reclassified from MMFs in November 2011 ('ex-MMF'). The new data categories are shown in Chart 2, as measured by total assets. This provides a comprehensive framework for analysis.

⁷ The Q1 2012 survey on repos and reverse repos should be seen as tentative, as holdings vary significantly between points in time.

4. Shadow Banking Behaviours

4.1 Leverage

Leverage plays a role in the credit intermediation process in two ways:

Firstly, an entity can take on leverage and pass this on as credit to other entities. This reflects the extension of credit through purchases of debt securities and derivatives on the asset side, financed on the liability side by debt security issuance, short- and long-term loans⁸, and various types of derivatives. This type of leverage is prevalent across all the financial sub-sectors examined. For financial vehicle corporations, such leverage largely arises from the issuance of debt securities under securitisation activities. The vast majority of these entities are over 90 per cent leveraged.

For investment funds, leverage on the liability side is linked to credit extension as follows: leverage is defined as the difference between the gross and net asset value of an entity, adjusted to exclude other accounts payable.⁹ Derivatives are included as mark-to-market losses represent debt due in the short term. Leveraged IFs are split between those involved in credit intermediation and others. Credit intermediation is deemed to have taken place, where leverage is used to fund debt security and derivative assets. It is assumed

that where leverage is used, it funds these assets in proportion to overall balance sheet holdings. Derivative positions on the liabilities side may be linked to similar positions on the asset side, but a firm relationship could not be established. In Table 2, leverage is divided into two categories for IFs and MMFs, i.e. entities with leverage on the liability side of between 20 per cent and 100 per cent of net asset value, and those leveraged over 100 per cent. The leverage figures are adjusted to reflect the portion of assets involved in credit intermediation.

From the analysis in Tables 2a and 2b, all IF categories contain leveraged entities. Hedge funds, ETFs and mixed funds all feature prominently, though most of the funds in these categories are not leveraged (even when no thresholds are applied). The relatively large number of leveraged ETF entities is consistent with a 'leveraged ETFs' investment strategy, which employs derivative and debt instruments to magnify the returns from the index being tracked. This leverage is almost entirely driven by derivative mark-to-market losses on swaps.¹⁰ However, a relatively smaller number of hedge funds account for most of the leverage in both categories. Derivatives play a large role in driving this leverage, but short-term loans are more prominent at leverage rates of above 100 per cent. Reverse repurchase agreements (reverse repos) account for much of these short-term

Table 2a: 20 to 100% Leverage by Fund Type in Q2 2012

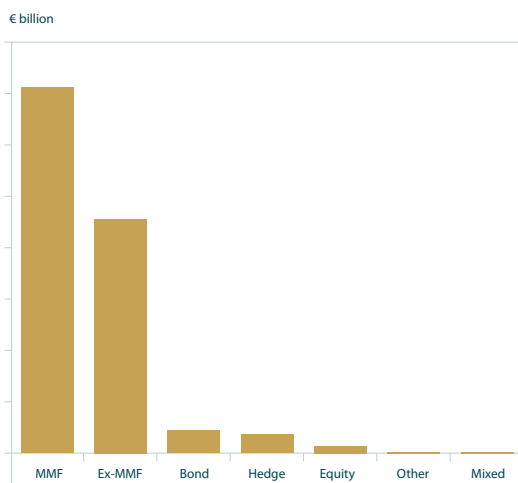
€ bn.	20-100%						
	No. of funds	Leverage amount	Total assets	Average leverage	Short-Term Loans	Derivatives	of which Swaps
Hedge	35	4.8	19.0	36%	1.9	2.8	2.7
Mixed	27	3.5	9.5	62%	2.9	0.6	0.3
ETF	61	2.2	9.1	51%	0.0	2.2	2.2
Bond	19	0.8	2.5	57%	0.2	0.6	0.2
Equity	8	0.3	1.0	36%	0.1	0.1	0.1
Residual*	3	0.7	2.0	50%	0.2	0.5	0.5

* Includes Ex-MMF, Other & Real Estate funds.

⁸ Short-term loans are defined as loans expiring within one year.

⁹ These are mostly accounted for by unsettled trades and margins (i.e. collateral) on derivatives.

¹⁰ These tend to be offset to a greater or lesser extent by mark-to-market gains on swaps on the asset side but the balance is more volatile than for most debt-funded asset purchases.

Chart 3: Repurchase Agreements in Q1 2012

loans, however, and these can be used to accumulate leverage rapidly.¹¹ A number of mixed funds are highly leveraged, and use reverse repos, indicating largely unconstrained investment strategies similar to hedge funds. Overall, long-term loans only play a very small role in leverage. Finally, the analysis shows that a small number of leveraged funds exist in categories not normally associated with leverage (e.g. bond and equity funds), with derivatives playing a significant role.

The leverage ratios chosen here are for illustrative purposes only. In terms of sensitivity of results to alternative ratios, if a leverage ratio of above 10 per cent were chosen, an additional 25 funds would be included while a ratio of 30 per cent would see the number of significantly leveraged funds decline by 27.

The second way that an entity can take on leverage is by lending funds to other entities without taking debt onto its balance sheet. This takes place almost exclusively through repurchase agreements (repos)¹², whereby the credit intermediation takes place through the lending of cash balances. These instruments fit the behaviour of deposit gathering entities, explored in Section 4.5, since the principal of the investment is protected while a fixed return is earned. These entities, as lenders, have a distinctly different profile to leveraged entities outlined below, with MMFs and ex-MMFs featuring prominently (Chart 3).

4.2 Credit risk transfer

Securitisation is a financial innovation where the credit risk of an asset is transferred from the balance sheets of institutions to investors in asset-backed securities via securitisation vehicles known as FVCs.¹³ This allows originators,

Table 2b: >100% Leverage by Fund Type in Q2 2012

€ bn.	>100%						
	No. of funds	Leverage amount	Total assets	Average leverage	Short-Term Loans	Derivatives	of which Swaps
Hedge	7	4.5	7.4	162%	3.3	1.2	1.0
Mixed	9	0.8	1.4	138%	0.8	-	-
Equity	2	0.7	1.4	114%	0.6	0.1	0.1
Other	3	0.2	0.3	184%	0.2	-	-
Residual*	3	0.2	0.3	194%	-	0.2	0.2

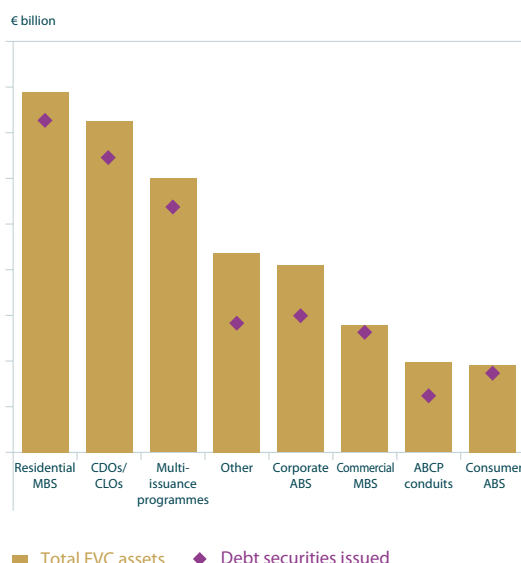
* Includes Ex-MMF, Bond & Real Estate funds.

¹¹ The main motivation behind their use is to turn securities assets into cash for a short period so as to purchase more assets. Of the €9.6 billion of reverse repos in the industry, over half are accounted for by hedge funds and most of the remainder by mixed funds. In both cases, these reverse repos account for around 40 per cent of total leverage. A small number of equity, bond and other funds also employ reverse repos.

¹² A repo is essentially a collateralised short-term loan, where debt securities are received by the seller in return for cash subject to a repo agreement to reverse the transaction at a set price in the future, irrespective of fluctuations in the value of the debt securities. These are recorded according to the party exposed to the risk.

¹³ See Godfrey & Jackson (2011).

Chart 4: Total assets of FVCs by Activity and Debt Securities Issued in Q2 2012



Note: excludes NAMA (Irish Government SPV).

including banks, to turn illiquid assets into funding. These entities are almost entirely financed by the issuance of short and long term debt securities but their asset profiles are very heterogeneous. As Chart 4 shows, credit risk has been transferred, and new credit generated, across a range of economic sectors and activities, including residential and commercial mortgages, consumer and corporate debt, asset backed commercial paper and different types of bond and loan obligations.

Credit risk transfer for IFs is difficult to pinpoint due to the lack of data on nominal positions of derivatives. Nevertheless credit derivatives, used to transfer risk from one party to another, are separately recorded, which provides some very tentative evidence. This activity appears to be quite limited in that mark-to-market positions in these derivatives were just €152 million on the asset side and €15 million on the liability side in Q2 2012, and used by just 174 funds. Overall, there is not much evidence to support the perception that hedge funds in particular are, as a category, aggressively engaging in large

positions vis-à-vis governments and corporates. However, changes in the market value of these derivatives tend to be small relative to nominal derivative positions and, therefore, firm conclusions cannot be drawn.

4.3 Maturity transformation¹⁴

Maturity transformation turns short term funding into asset holdings of longer term maturities. Mismatches can pose systemic run risks during times of financial stress. Of all FSB defined behaviours examined, maturity transformation encompasses the highest number of entities, at 662.

4.3.1 FVCs

Maturity transformation can be inferred to a limited extent for financial vehicle corporations (FVCs). On the liability side a full maturity profile is available, as debt securities issued by FVCs can be matched against the centralised securities database (CSDB). Less detail exists on the assets side, as a maturity profile is not available for securitised loans, which comprise around half of all assets. However, these are generally considered to be long term. Securities other than shares account for one quarter of assets and their maturity profile is available through matching against the CSDB. Deposit and loan claims, which account for around one-sixth of assets, are not broken down by maturity but these are predominately short term. The funding profile of FVCs based on available CSDB data indicates significant redemptions in the next five years. Most of the funding for commercial mortgage-backed securities vehicles and a large portion of asset-backed commercial paper conduit funding is due within five years. For other FVC types, consumer and corporate asset-backed securities have most funding due within five years but these are backed by debt such as credit cards, car loans and non-financial corporation loans. For vehicles based on longer-term securitised loans, such as residential mortgage backed securities, most of their funding is also long term.

¹⁴ While liquidity and maturity transformations often co-exist, the FSB definition allows maturity transformation to occur separately from liquidity transformation. This differs from classic banking theory, which emphasises the liquidity transformation function of banks. Moreover, in the literature, maturity and liquidity transformation are often intertwined. The FSB focuses specifically on systemic risk, however, which includes the risks of markets turning illiquid during a financial crisis and intensifying investor flight as assets are sold at distressed prices.

Table 3: Maturity Transformation by Fund Type in Q2 2012

	>20%			
	Number of funds	Long term debt held (€ bn.)	Total assets (€ bn.)	Average %
Bond	342	84.2	103.7	81.2
Mixed	120	26.5	35.9	73.7
ETF	49	21.5	22.7	94.7
Hedge	63	20.6	29.4	70.1
Other	21	9.4	18.4	51.1
Equity	60	8.8	12.3	71.6
Ex-MMF	6	2.0	4.1	48.9

4.3.2 Investment funds

Coverage of maturity transformation in investment funds is more comprehensive with maturity information available for almost all debt securities held. For these funds, maturity transformation is defined as the extent to which longer-term assets (debt securities of over one year and long-term loans) are funded by short-term liabilities (shares/units in issue for open-end funds, short-term loans and derivatives).¹⁵ Closed-end funds are excluded as investors do not have the right to redeem their shares/units directly from the fund. A minimum threshold is applied, that at least 20 per cent of long-term assets are funded by short-term liabilities, so as to exclude funds for which maturity transformation is not a defining characteristic.

Maturity transformation activity, as shown in Table 3, is substantial and takes place across a wide range of fund categories. Bond funds account for the majority of this activity, reflecting the very limited amount of longer-term loans on the liability side. At the same time, most bond funds remain outside the measure. Hedge funds, mixed funds and, surprisingly, equity funds are also prominent, with the latter possibly reflecting funds at the borderline of the equity and mixed funds classifications. Interestingly, some hedge funds, not classified as shadow banking under the leverage behaviour, are included here.

The results are not markedly sensitive to the choice of threshold, since most of these funds are substantially invested in longer term debt. For example, if the threshold is reduced to 10 per cent, 60 funds are excluded and, if increased to 30 per cent, 51 extra funds are included.

4.4 Liquidity transformation

The available data provides very limited information on this type of activity and only limited inferences can be drawn. Liquidity transformation occurs when liquid assets are pooled together and invested in illiquid assets. The FVC sector engages in liquidity transformation by definition, funding securitised loans that are not traded in financial markets with the issuance of debt securities that are. For IFs and MMFs, indicators such as the ratio of transactions flows to stocks, issuance/redemption dates, ratings and bid-ask spreads were examined but no inferences could be drawn.

4.5 Deposit gathering

Deposit gathering activity brings a sizeable and distinct set of entities into shadow banking, most notably MMFs, but also some bond funds. The rationale for including this activity is that these entities are financed by short-term funding with the aim of providing investors with higher returns than would

¹⁵ Where long-term assets exceed long-term liabilities, the difference is covered by short-term funding. Results are sensitive to the definition of long-term assets, which we define as a maturity of over one year.

Table 4: MMFs, Ex-MMFs and Bond Funds in Q2 2012

MMFs		Ex-MMFs		Bond Funds	
Type of Security	Asset	Type of Security	Asset	Type of Security	Asset
Bonds & Notes	11.2%	Bonds & Notes	17.0%	Bonds & Notes	73.3%
Deposits & Loans	27.1%	Deposits & Loans	32.7%	Deposits & Loans	3.6%
MMIs	61.0%	MMIs	48.5%	MMIs	2.9%
Other	0.8%	Other	1.7%	Other	20.3%

Note: MMIs are money market instruments.

be available from ordinary bank deposit accounts. The expectation among investors is that access to their funds is similar to that of bank deposits and that the underlying capital investment is not at risk. The entities undertaking this activity are, however, lightly regulated compared to banks. They invest mostly in what are generally considered to be safe and liquid short-term assets, such as money market instruments and repos. Bond funds generally invest along the spectrum of the yield curve and would not generally be considered deposit gatherers. Some, however, invest predominantly in short-term instruments similar to those of MMFs. The composition of assets held by a fund is the key criterion for identifying deposit gathering activity, given investor expectations that their investment can be redeemed at short notice. Deposit gathering behaviour is defined for the purposes of this paper as occurring where over half of the assets of a fund are short term.¹⁶

A change in the statistical definition of MMFs last year had a significant impact on what would be seen as shadow banking from a top-down approach. This change was implemented in the Irish data in November 2011, removing funds to the value of €104 billion from MMFs, almost exclusively to bond funds. The rationale was to bring the statistical definition into line with the supervisory definition at a euro area level. The new MMF definition is more focused in that it includes an investment strategy of maintaining the principal and earning a return in line with

money market rates, and states that MMFs can only invest in high-quality money market instruments.¹⁷

For the purposes of measuring shadow banking, however, the new definition is problematic. A fund mostly, but not exclusively, invested in high-quality, highly-liquid money market instruments could be a deposit gatherer but not an MMF. Furthermore, an entity could behave as a deposit gatherer but would not be classified as an MMF because the investment strategy allows a broader range of activities.

The ex-MMFs behave more like current MMFs relative to the rest of the bond fund category, to which they are now classified. A typical bond fund would not generally be expected to invest in money market instruments. Indeed for those bond funds that are not ex-MMFs, this type of investment is tiny, as shown in Table 4. Current MMFs are mostly invested in money market instruments, as expected, but the ratio is also high for ex-MMFs. A similar pattern is evident in the use of repos, which is actually higher for ex-MMFs than for MMFs, but negligible for bond funds. When the definition of deposit gathering behaviour is applied, the entities identified straddle funds across the MMF, ex-MMF and bond categories. Most current MMFs are included as expected but so are half of all bond funds that were formerly MMFs, as shown in Table 5. A small but not insignificant number of other bond funds are also included.¹⁸

¹⁶ Debt securities with residual maturity of less than one year, money market instruments, bank deposits or short-term loan assets, including repos.

¹⁷ It also requires the investment manager to take into account issues such as credit quality, asset class, counterparty risk and liquidity. This definition applies to all assets whereas the old definition covered 85 per cent of total assets.

¹⁸ This excludes those funds that hold short-term assets as part of a winding down process.

Table 5: Deposit Gathering by Fund Type in Q2 2012

	>50%			
	Number of Funds	MMIs + cash and deposits (€ bn.)	Total Assets (€ bn.)	Average %
MMF	74	258.4	279.3	92.5
Ex-MMF	35	91.6	104.3	87.8
Bond	34	6.5	7.1	90.4

Note: MMIs are money market instruments.

The results are not particularly sensitive to different thresholds in our definition of deposit gathering. Reducing the threshold of short-term assets to 40 per cent of total assets brings in 11 funds (6 bond funds, 3 MMFs, 2 Ex-MMFs) while increasing it to 60 per cent takes out 6 funds (4 bond funds, 1 MMF and 1 ex-MMF).

5. Results

The results illustrate the extent to which existing categories need to be disaggregated in order to measure shadow banking behaviour as defined by the FSB. Around two-thirds of all FVCs, MMFs and IFs combined, by total assets, are identified as engaging in shadow banking behaviour.

Table 6 populates Table 1 on the basis of the analysis undertaken, with Chart 5 updating Chart 1. The main conclusions are:

FVCs – All are included in measurements of behaviours as expected with some additional information provided on maturity transformation by vehicle type;

MMFs – Most engage in deposit gathering activity as expected but a small minority do not;

Bond Funds – A quarter of the total engages in maturity transformation while smaller numbers are identified under leverage and deposit gathering;

Ex-MMFs – Most of these engage in deposit gathering, measured by total assets, but are now classified as bond funds in published data;

Equity Funds – Although not associated with shadow banking, a small number of funds are identified under both leverage and maturity transformation;

Table 6: Shadow Banking Behaviours by Size in Q2 2012

€ billion	Total assets	Leverage (excl. repos)	Repos (Q1 2012)	Credit risk transfer	Maturity transformation	Liquidity transformation	Deposit gathering
FVCs	469.2	448.2	-	469.2	47.5	469.2	-
MMFs	279.3	-	35.6	-	-	?	279.3
Bond funds	111.6	2.8	2.1	?	103.7	?	7.1
Ex-MMFs	108.5	-	22.8	?	4.1	?	104.3
Hedge funds	41.6	26.4	1.7	?	29.4	?	-
Mixed funds	37.4	10.9	0.1	?	35.9	?	-
ETF funds	31.8	9.1	-	?	22.7	?	-
Other funds	18.7	2.2	0.1	?	18.4	?	-
Equity funds	12.6	2.5	0.7	?	12.3	?	-
Private equity funds	-	-	-	-	-	-	-
Real estate funds	-	-	-	-	-	-	-

Note: As entities may engage in a number of shadow banking activities, the sum of the categories may not equate to total assets.

Hedge Funds – Consistent with the public debate, almost half of the category is captured, though maturity transformation activity is as strong as leverage;

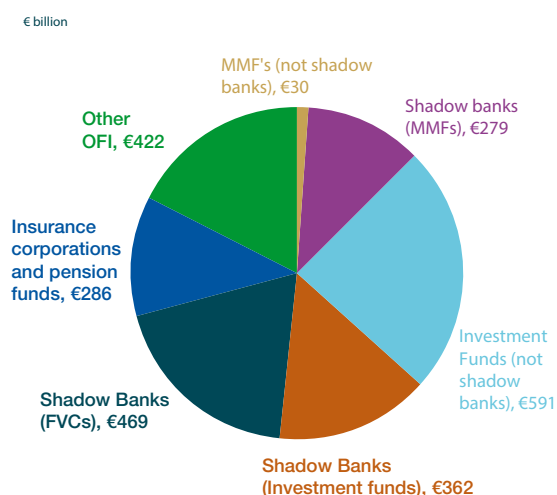
Mixed Funds – Over one-third of these are captured, mostly under maturity transformation, though the leverage behaviour of a substantial minority is quite similar to hedge funds;

ETFs – Almost half of the category is engaged in leverage and/or maturity transformation;

Private Equity Funds and Real Estate Funds – These are not included in the FSB definition as they are not involved in the credit intermediation chain though may be included in other shadow banking definitions;

Other Funds – Almost half of these are included though their share of shadow banking activity is much smaller once ETFs and private equity funds are removed.

Chart 5: Breakdown of Non-Bank Intermediaries in Ireland in Q1/2 2012



Notes: IF, MMF and FVC data ref. Q2, 2012.
Other data sourced from Central Bank of Ireland QFA, ref. Q1 2012.

6. Interconnectedness with Banks

The data only provides limited detail on links between shadow banking activity and the banking sector.

For FVCs, disaggregation is available for deposit and loan claims and a portion of securitised loans still serviced by banks. Debt securities assets can be matched to MFIs¹⁹ using ISIN codes but the amounts involved are relatively small. Share register information is not available to determine ownership for FVCs. Deposit and loan claims amounting to €3.9 billion can be linked to Irish banks, and €7.1 billion to other euro area banks, but no breakdown is available for the rest of the world. For securitised loans, €53.4 billion are serviced by Irish banks and €3.6 billion by German banks. In most cases, the servicer of the loans is also the originator.

For MMFs/IFs, a breakdown is available for asset holdings of debt and equities issued by banks. Deposits and loans are not available but banks are likely to be the major counterpart. A total of €63 billion is invested in bank assets, 80 per cent of which is investment in bonds by deposit gatherers. Funds involved in leverage account for the remainder. Fund ownership is collected but on a first known counterpart basis only. Banks directly own around half of all shares/units in deposit gatherers and around a quarter, on average, in other shadow banking entities. The existence of crossholdings between funds and nominee accounts, means that these shares may not accurately reflect the ultimate beneficial owner. The data, however, show that banking exposures are mostly situated outside the euro area, in particular, in the UK and the US.

¹⁹ Monetary and financial institutions include MMFs but the latter holdings of IFs and other MMFs are minimal.

7. Data Gaps

The analysis undertaken highlights the importance of granular data in understanding shadow banking behaviour. While the source data has improved considerably, primarily from the development of the euro area statistical framework, significant gaps still remain. In Ireland, the detailed granular information is only available for investment funds, money market funds and financial vehicles corporations²⁰, meaning that a significant part of the other financial intermediaries sector is not covered. In particular, treasury companies, leasing companies, some private equity funds and securitisation-type vehicles falling outside the FVC definition, are not covered.

Information on the measurement of liquidity transformation is a particular challenge. Ideally, securities databases could provide information on transactions per security, bid-ask spreads and credit ratings but this is a major operational challenge. Alternatively, reporting agents might be asked to classify securities according to particular liquidity buckets, but this probably represents an unacceptable reporting burden.

Limited information is available for derivatives, repos and securities holdings, both in terms of counterparties and volumes of activity. For derivatives, reporting on the basis of nominal positions, as well as mark-to-market, would provide a much clearer picture of the type of leverage used, particularly in the funds sector. Greater use of trade repository and central counterparty data could also be considered. Data gaps on security holdings are being addressed, however, in the context of a securities holding project underway at the ECB. This will improve counterpart information for securities where ISIN codes are reported – however, some domestic respondents use other codes, SEDOL or CUSIP, as their primary security identifier.

Gaps also exist in terms of identifying positions between financial sector entities, and particularly between entities within a

common group structure, most of which operate on a cross-border basis. These gaps may be reduced through the development of international registers.

While some gaps need to be addressed through international initiatives, improvements can also be implemented at national level. As part of a project to implement ESA2010²¹ changes, the Central Bank of Ireland is proposing a number of improvements to reporting forms in 2014. Enhancements to the identification of ETFs and private equity funds will be included. Expanded instrument coverage is also proposed for repos, reverse repos and other securitised lending. The potential for separately identifying unquoted securities and derivatives used for credit risk transfer will also be explored. Greater information may also be requested on the holdings of fund shares, but it is accepted that information on the ultimate beneficial owner may not be available to reporting agents. The securities holding project underway at the ECB offers potential in this regard.

For FVCs, the feasibility of collecting ownership structures by sector and geography is being explored. There is also scope to further expand asset and liability categories by maturity, sector and geography, and to enhance the reporting of securities by ISIN code.

8. Conclusions

The main purpose of the paper is to show the value of using granular data to measure shadow banking activity. This exercise represents a snapshot of shadow banking in Ireland at a particular point in time, according to the FSB definition. It also provides a framework for analysing these data. The results show that shadow banking activity does not fit neatly into the broad categories of published statistical data. Measurement is also sensitive to the various thresholds chosen in order to define shadow banking behaviours.

²⁰ Granular data collection will be expanded shortly to the Insurance sector, allowing an assessment of what shadow banking activities are undertaken in this sector.

²¹ European System of Accounts definitions as updated in 2010.

All Irish resident FVCs and most MMFs engage in shadow banking activity, though granular data is required to quantify the extent. All categories of IFs contain some shadow banking entities, although most categories fall outside the top-down definition. Measurement, therefore, requires access to granular data on a fund-by-fund basis to define and quantify shadow banking behaviours.

The statistical classification of IFs is problematic for the purposes of measuring shadow banking and, therefore, the creation of some alternative data categories needs to be considered. The recent reclassification of some MMFs highlights how borderline entities can significantly impact on a top-down measurement. Furthermore, the existence of broad investment strategies allows some types of funds (e.g. mixed) to engage periodically in shadow banking activities. It is important to note that classifying particular entities as falling within various types of shadow banking behaviours does not necessarily indicate major risks from a financial stability perspective. However, adherence to more than one behaviour, or being in excess of chosen thresholds, may indicate greater vulnerabilities. The framework and the dataset outlined in this paper may offer potential for refining the analysis of risk.

The paper shows that the shadow banking sector in Ireland is significant, with predominantly non-domestic risk exposures. This underlines the international nature of shadow banking and the need to share information across borders. The introduction of shadow banking measurement as a consideration when designing future reporting requirements would yield significant benefits in isolating shadow banking behaviours. A number of data gaps exist that can be addressed by measures that range from relatively easy to difficult and expensive to implement. On an international level, the development of share registers and data from centralised clearing houses would provide

key information on counterparties and indirect linkages that are currently missing. Initiatives are also required at national level, and the Central Bank of Ireland proposes expanding granular data collection in forthcoming revisions to reporting forms.

In summary, granular data clearly has an important role to play in efforts to measure and understand shadow banking and the risks therein, both at national and international level. These types of data should be more integrated with top-down approaches to fully understand the full extent of shadow banking activities and to better identify vulnerabilities.

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Ireland's Financial Crisis: A Comparative Context¹

Maria Woods and Siobhán O'Connell²

Abstract

This paper aims to place the Irish financial crisis of 2007/08 to date in comparative context. By drawing on international experience, some stylised facts on the potential longer-term economic consequences are drawn. Although the future performance of both the Irish economy and the domestic financial system remain uncertain, understanding the path to recovery of macro-financial aggregates and of banks' profitability during previous crises may help to inform current policy decisions. Notwithstanding country-specific differences, this paper, therefore, examines four episodes of systemic crises in advanced economies where property market adjustments played a significant role in their propagation. The sample includes the Nordic (i.e., Sweden, Finland and Norway) crisis in the early-1990s and the Japanese crisis (1997-2001) to help benchmark Irish developments up to summer 2012.

¹ The authors are respectively a Senior Economist in the Financial Stability Division and a Research Assistant in the Statistics Division. The views expressed in this paper are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the ESCB. The authors would like to sincerely thank John Flynn, Trevor Fitzpatrick, Kieran McQuinn, Joe McNeill and Rebecca Stuart for useful suggestions and comments. We would also like to thank colleagues in the Statistics Division for assistance in pre-publication.

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1. Introduction

Since 2008, Ireland has experienced a severe financial crisis characterised by a systemic banking crisis and a significant economic adjustment. As has been well documented, Ireland had a protracted property and credit boom which contributed to unsustainable domestic imbalances prior to the crisis. Furthermore, the economic adjustment coincided with, and was exacerbated by, the global financial crisis, which began in 2007. The scale of the Irish State's outlay, in terms of recapitalisation and other policy measures (e.g., National Asset Management Agency, Government guarantee on liabilities) to deal with the severe problems faced by the banking sector, created significant actual and contingent fiscal liabilities and transformed banking sector risk into sovereign risk. Against the background of heightening tensions in European sovereign debt markets, these risks intensified from late-summer 2010, resulting in Ireland applying for external assistance in November 2010. Under the EU/IMF Programme, Ireland is adhering to a timeline of targeted measures promoting banking stabilisation, fiscal consolidation and structural reform.

Although the Irish crisis has not yet been resolved, Laeven and Valencia (2012) estimate that based on data up to 2011, it now ranks as one of the most expensive banking crises in an advanced economy since the 1970s. This conclusion is based on cumulative output losses, gross fiscal costs and increases in government debt from a sample of 147 systemic banking crises over the period 1970 to 2011. The Irish case is found to be the only country currently experiencing a systemic crisis that features in the top ten across all of the aforementioned three metrics over the sample period. As of July 2012, the State had injected €63 billion of capital into the Irish banking system.

The future performance of both the Irish economy and the domestic financial system remain uncertain at present. Understanding the path to recovery of key macro-financial

aggregates and banks' profitability during previous international crises, however, may help to inform policy decisions. This paper, therefore, delves deeper than Laeven and Valencia (2008, 2010 and 2012), which compares episodes of systemic crises, and other important papers on both the short-run [e.g., Reinhart and Rogoff (2009)] and the long-run [e.g., Reinhart and Reinhart (2010)] adjustment of an economy following financial crises. Specifically, this paper compares the Irish crisis with four systemic crises in advanced economies and looks at the various recovery scenarios of some 'headline' macroeconomic and financial variables to determine if appropriate parallels can be drawn to the Irish crisis and its longer-term consequences. The strong linkages between the real economy and the financial system imply that full recovery in both areas will be required to ensure that any future upturn in the Irish economy will be sustainable.

In terms of specific variables, the paper examines the following indicators;

- Real GDP,
- The unemployment rate,
- Current account developments,
- Real asset prices (i.e., house prices, capital values and equity prices),
- Bank profitability and asset quality,
- Credit and deleveraging (i.e., Private-Sector Credit/GDP ratio).

Although there is some discussion of policy measures employed in other crises, it is not the focus of this paper.

Given the origins of the Irish crisis, this paper focuses on episodes of systemic distress in developed economies where property market adjustments played a key role in the propagation of the crisis. The sample includes the Nordic (i.e., Sweden, Finland and Norway)

crisis in the early-1990s and the Japanese crisis (1997-2001)³.

It may be that a property-related shock has different characteristics than those associated with changes in other risk factors like interest rates, unemployment, and oil prices. Developments in the property market have played a key role in a number of crisis episodes throughout history. As noted in Herring and Wachter (1999), although banking crises can occur without real-estate cycles and vice versa, there is a high incidence of both being strongly correlated across both advanced and emerging markets, even accounting for institutional factors. The authors also note that the evolution of a property-related crisis depends on the scale of the inter-linkages between the financial system and the real economy. In Ireland, these inter-linkages are quite acute given the prevalence of bank debt as a key source of financing for the resident private sector. Claessens *et al.*, (2008) also find that economic slowdowns or recessions associated with house price adjustments and credit contractions generally result in relatively higher output losses than other types of recessions.

Although there are common features in certain types of crisis, the evolution of macro and balance-sheet variables during and after a crisis may be influenced by a number of country-specific factors, such as the initial macroeconomic conditions, the fiscal policy stance, currency regime, and the domestic policy response to the crisis in addition to developments in the external environment. This fact is also taken into account when drawing conclusions.

The paper proceeds as follows; Section two provides a rationale for the choice of international benchmark; Section three addresses the timing and extent of adjustment in macroeconomic aggregates while Section four looks at banks' profitability and credit. The final section draws some tentative conclusions for the Irish case.

2. International Benchmarks

There have been a number of different types of economic and financial stress periods in both advanced and emerging market economies over the last century, namely currency crises, financial crises, sovereign debt crises, twin crises (i.e., banking and currency), triple crises (i.e., containing all three), stock market crashes, and the failure of large financial players (e.g. Long-Term Capital Management).

In order to improve our understanding of the Irish situation, it is useful to focus on crises that have similar features. However, this aim is complicated somewhat by some differences in the Irish crisis characteristics. Although Ireland has experienced a very traditional banking crisis, in that, it was preceded by a credit and asset price boom, it also occurred in the context of a significant global shock⁴. Also, given its membership of the European Monetary Union (EMU), Ireland did not suffer a currency crisis, experiencing instead an internal devaluation. As previously noted, the scale of state support required to deal with the systemic banking crisis, combined with the severe correction in the real economy, eroded confidence in the Irish sovereign. This latter fact differentiates Ireland from the majority of that group of crisis episodes in advanced economies where property played a key role in the propagation of the crisis. In recent decades, many of the severe financial crises that were accompanied by a sovereign crisis were limited to emerging market economies (e.g., Mexico, 1982 and Argentina, 2001). Closer to home, as the European sovereign debt crisis that currently affects a number of advanced economies has yet to be resolved, these cases are not the focus of this paper.

According to Reinhart and Reinhart (2010), as compared to previous stress episodes, the current global crisis was exacerbated by the marked decline in financial intermediation and a synchronised contraction in economic output. These features made the current crisis much more severe than recent crises such as the Nordic and Japanese crises and those in emerging markets. It is only comparable to pre-

³ This paper follows the dating of above episodes of financial crises in Laeven and Valencia (2010 and 2012). Appendix 1 provides a comparison with other authors.

⁴ Much has been written about the current crisis and its origins in the US sub-prime market. As this is not the focus of this paper, the interested reader is directed to Brunnermeier (2009), Shin (2010) and Gorton (2009).

World War II crises (e.g. the Great Depression during the 1930s⁵ and the post World War I hyper inflationary period in Germany) in its scope and magnitude. Laeven and Valencia (2012) also note that the current global crisis contains the highest frequency of stress episodes based on data from 1970 to 2011 and has, thus far, mostly impacted advanced economies. This development may have significant implications for the Irish recovery given its status as a small open economy. The literature suggests that recessions which involve a synchronised contraction of output across a number of countries may be more severe compared with slowdowns that affect only one country or region (IMF, 2009). According to the research, these recessions can lead to slower recovery in GDP, with less growth coming from external demand.

Notwithstanding the difficulties in finding an appropriate historical benchmark for the Irish situation, it is intended to look at past financial crises in advanced economies that experienced both severe property price declines and were characterised by a systemic banking crisis.

The literature [i.e., Reinhart and Rogoff (2009), Reinhart and Reinhart (2010)] identifies five systemic crises in advanced economies since World War II. The countries identified are the Nordic (i.e., Sweden, Finland and Norway) crisis in the early-1990s, the Japanese crisis (1997-2001) and the Spanish crisis (1977). This paper discusses the first four countries identified because, similar to Ireland, they are advanced open economies which, prior to their crises, had strong economic activity which, in large part, was driven by an asset and credit boom. We do not include the Spanish crisis (1977)⁶ given the differing origins of the crisis.

In carrying out our study, we have benefitted from the fact that much work has been done on constructing and updating databases of episodes of systemic banking crises⁷. The recent global financial crisis has added a number of systemic banking crisis episodes featuring advanced economies to the list. According to Laeven and Valencia, (2012), the Irish crisis up to 2011 meets the criteria for a systemic banking crisis⁸.

The literature also identifies other episodes, such as the Savings and Loan (S and L) crisis in the United States (1980s), the Small Banks' Crisis in the United Kingdom (1990s) and the case of Thailand during the Asian crisis (late-1990s) where property market corrections played a key role in the propagation of these crises [e.g., Logan (2000), ECB (2008) and Herring and Wachter (1999)]. These crises are, however, excluded from our analysis for a number of reasons. Thailand is a developing economy and is therefore not a useful comparator. The UK case is not considered systemic by the literature, while the US S and L crisis is considered borderline systemic. Moreover, data at state-level are required to provide a true picture of the impact of the S and L crisis on macroeconomic and banking sector aggregates.

3. Macroeconomic Indicators

This section begins the comparison of the Irish crisis with the Nordic and Japanese crises. Boxes 1 and 2 contain further details on the evolution of both crises, including policy responses. The focus is on key macroeconomic variables such as GDP, unemployment, current account dynamics and

⁵ See IMF (2009) for a brief comparison of the recent global financial crisis with the Great Depression of the 1930s. Factors such as the pivotal role of the United States, the incidence of pre-crisis credit booms, high levels of leverage and dislocation in bank funding which characterised both crises are discussed. Key differences between both episodes relate to the scale and type of policy response, initial macroeconomic conditions and the type of international monetary policy system.

⁶ We do not include the Spanish crisis of the late-1970s primarily due to lack of data and given the slightly differing origins of the crisis. Our sample focuses on crises where property market adjustments played a significant role. The Spanish financial crisis was caused by macroeconomic factors such as the oil price shock, a weak regulatory system and inadequate risk management by banks (see Ingves *et al.*, 2009) which coincided with political uncertainty following the death of General Franco in 1975.

⁷ Laeven and Valencia (2010 and 2012) have expanded the work of Laeven and Valencia (2008), Honohan and Laeven (2005) and Caprio *et al.*, (2005) to present a database of systemic banking crises over the period 1970 to 2011.

⁸ The authors regard a banking crisis to be systemic if two conditions are fulfilled, namely signs of marked financial distress (losses, liquidations and/or bank runs) and the introduction of policy intervention measures to deal with significant losses. With regard to the latter criterion, at least three of the following six measures have been implemented; liquidity support, at least 3 per cent of GDP can be attributed to bank restructuring costs, nationalisations, guarantees, asset purchases greater than 5 per cent of GDP and deposit freezes.

Table 1: Real GDP

	Finland	Norway	Sweden	Japan	Ireland
Crisis Period	1991-1993	1987-1993	1991-1993	1992-2001	2008-ongoing
Cumulative fall in real GDP (%)	-10.4	-0.1	-3.8	-2.2	-8.3
	(1990-1993)	(1987-1988)	(1990-1993)	(1998-1999)	(2008-2010)

Sources: Sandal (2004), IMF World Economic Outlook, April 2012 and Central Statistics Office.

asset prices. In terms of the dating of the Irish financial crisis the start year is considered to be 2008⁹, when the economy officially went into recession¹⁰. This crisis start date also accords with Laeven and Valencia (2012).

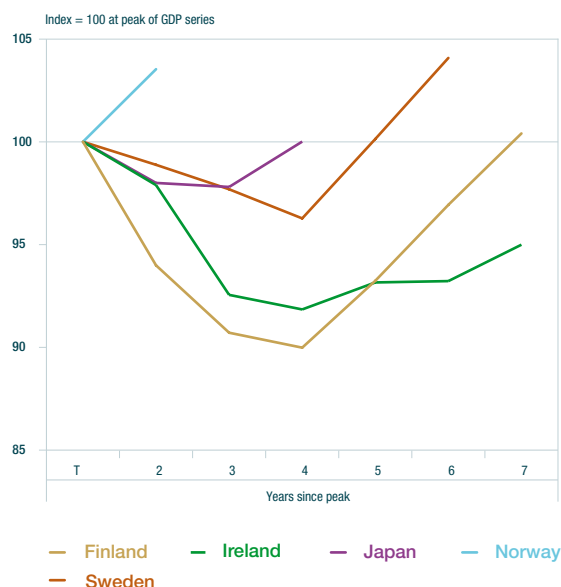
3.1. Output, Unemployment and External Position

In terms of *real GDP*, Table 1 shows that the cumulative fall in GDP in Ireland exceeds the recorded declines in all countries listed with the exception of Finland, over the respective crisis periods. The crisis period as illustrated in Chart 1 is from the peak year of GDP which occurred in Finland (1990), Norway (1991), Sweden (1990), Japan (1997) and Ireland (2007). Although the crisis period in Finland spans four years, much of the decline in real GDP occurred in the first two years when economic growth declined cumulatively by 10 per cent (Chart 1). In Japan, real GDP declined by 2.2 per cent between 1998 and 1999 before recording positive values. By contrast, Norway experienced a very shallow adjustment with output remaining static rather than declining. Among the four countries Finland also took the longest at six years for real GDP levels to recover fully to pre-crisis peaks (Chart 1). The collapse of Finland's main export partner, the Soviet Union, had a significant impact on GDP. As noted in Box 1, which looks at the Nordic episode, output losses and fiscal costs arising from the crisis are estimated to be relatively higher in Finland compared with Sweden or Norway.

Irish real GDP peaked in 2007 and currently remains below pre-crisis peaks. Forecasts from the Central Bank of Ireland, as published

in the Q3 2012 Quarterly Bulletin, have been used to extend the series to 2013, and forms the basis for the Irish series shown in Chart 1. As can be seen from that chart, the recovery in the level of real GDP in Ireland has been slower than in any of the countries in the sample we examine. Moreover, the medium-term forecasts for Irish GDP suggest that it may be another two to three years before real GDP returns to 2007 peak levels.

Chart 1: Time to Recovery (Real GDP Levels)



Sources: IMF World Economic Outlook (WEO) April 2012 edition, Central Statistics Office (CSO) and Central Bank of Ireland calculations.

Note: T=year of peak real GDP levels. Irish data covers the period 2007 to 2013. Forecasts for 2012 and 2013 are from the Central Bank of Ireland Quarterly Bulletin Q3 2012.

Dates of peak: Ireland: 2007, Finland: 1990, Sweden: 1990, Japan: 1997, Norway: 1991. For Ireland, Finland and Sweden, the peak was the year preceding the start date of the crisis. For Norway, time T is the start date of the crisis as real GDP levels continue to rise from 1988.

⁹ The Irish property market peaked in 2007. However, 2007 is not chosen as the start year as real GDP increased by 5.4 per cent and the unemployment rate averaged 4.5 per cent (almost full employment).

¹⁰ In September 2008, data from the Central Statistics Office showed that the Irish economy had contracted for two consecutive quarters which meets the technical definition of a recession.

Box 1: Overview of the Nordic Financial Crisis

In the early 1990s Sweden, Finland and Norway experienced severe economic and financial crises. This box provides a brief overview of the evolution of the Nordic crisis and the respective policy measures.

The literature on the Nordic crisis of the 1990s is extensive. The following section draws heavily on Sandal in Moe *et al.*, (2004) in addition to other cited references below. Although the propagation and trigger for each episode differs across the three countries, there are common features. In each instance, financial deregulation, pent-up credit demand and strong economic activity led to an asset and credit boom, and a leveraged private sector prior to the onset of the crisis. Much of the borrowing was for property-related purposes and therefore credit risk was concentrated in real estate. The fixed exchange rate regime also played a role as many borrowers circumvented high domestic interest rates by borrowing in foreign currency. Moreover, poor risk management, inadequate supervision and lax fiscal policy contributed to the build-up of vulnerabilities.

A number of external shocks and the subsequent contraction in economic activity led to a significant adjustment in the domestic property market, which in turn led to significant loan losses for the banks in each country. In terms of specific external shocks, Norway was heavily dependent on oil exports and therefore the oil price shock in 1986 had significant repercussions, while in Finland loss of exports from a major trading partner, namely the Soviet Union in 1991 severely impacted the economy. Nyberg and Vihriälä (1993) estimates that the loss of the Soviet export market incurred a negative demand shock of about 2.5 per cent of GDP with knock-on implications for the heavily indebted private sector. A rise in German interest rates impacted all three countries while Sweden and Finland also suffered a currency crisis in 1992 as a result of the exchange rate mechanism (ERM) crisis. Subsequent depreciations led to higher levels of bankruptcies and losses on foreign currency lending. As the banking crisis became systemic, authorities employed swift remedial policy measures.

Both Finland and Sweden implemented blanket guarantees for depositors. As part of the Norwegian banking sector remained sound, it was decided that a guarantee would create perverse incentives for these institutions (Bank for International Settlements, 2004). The guarantees were maintained for six years in Finland and four years in Sweden. Asset management companies were created in Sweden and Finland while all three countries created separate bank restructuring agencies. Across the three episodes, there were recapitalisations and public take-overs with shareholder burden sharing. Only in Norway, however, were there liquidations of banks. In all three cases, the literature regards the response of the authorities to be swift and transparent; this fact was instrumental in the recovery process.

In addition to prompt resolution policy and regulatory reform, recovery in each case was facilitated by macroeconomic policies and exchange-rate developments. According to the BIS (2004), macroeconomic conditions began to improve in 1993 and as the Norwegian Krone started to float in 1992, money market interest rates fell. In Sweden the crisis was also resolved relatively quickly with the change in the exchange-rate regime playing an important role. Once the pegged exchange rate was abandoned following the ERM crisis, the Swedish Krona depreciated sharply and the depreciation continued for a number of years leading to competitiveness gains. According to Johung (2009), this development implied that exports became the main driver of growth in the Swedish economy. As a share of GDP, exports doubled between 1992 and 2008. McKinsey (2010) also highlights that the real decline in the Markka had positive implications for the export sector in Finland.

Box 1: Overview of the Nordic Financial Crisis

According to Laeven and Valencia (2012), output losses as a percentage of GDP range from 5.1 per cent in Norway to 30.6 per cent in Sweden and 69.6 per cent in Finland¹. There are a number of methods of calculating fiscal costs of banking crises. Honohan and Klingebiel (2003) use expert or official assessment to estimate the net present value of the costs as a percentage of GDP². The authors estimate fiscal costs are highest in Finland at 11 per cent of GDP, while in Norway and Sweden the corresponding figures were respectively 8 and 4 per cent³. Sandal in Moe *et al.*, (2004) highlights that bank intermediation was relatively higher in Finland and so the banking crisis was deeper, which might explain higher gross fiscal costs. Net fiscal costs take into account the value of income recouped by the State, while gross fiscal costs measure total fiscal outlay. Sandal calculates both gross and net fiscal costs and shows that Norway managed to recoup more of the costs than Finland. Further, Norway has the lowest net fiscal cost among the three countries.

- 1 The authors calculate output losses as the cumulative sum of the difference between actual and trend real GDP for the period $[T, T+3]$, expressed as a percentage of trend real GDP where T is the starting year of the crisis. Trend real GDP is computed by applying an HP filter ($\lambda=100$) to the log of the real GDP series over $[T-20, T-1]$. Data are sourced from the Autumn 2011 IMF World Economic Outlook.
- 2 Recapitalisations costs, any bailout costs for deposits and bank creditors and any debt relief scheme for borrowers are included in the fiscal cost calculations.
- 3 It should be noted that Honohan and Klingebiel use different start and end dates for the individual episodes compared with Laeven and Valencia. These are as follows; Finland (1991-1994), Sweden ((1991-1994) and Norway (1987-1993).

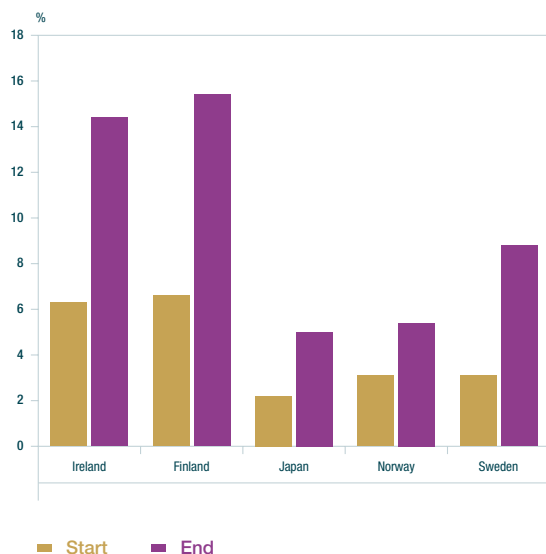
A significant economic adjustment in the Irish economy has led to the rapid unwinding of domestic imbalances¹¹. These imbalances grew over a number of years as economic demand became reliant on a credit-fuelled property bubble. Prior to the crisis, employment, government revenue, and investment were driven to a significant degree by cyclical sectors such as the construction sector (McGuire and Smyth, 2005). Consistent with international experience, the Irish property market began to contract prior to the onset

of the crisis in the domestic real economy. Specifically, the housing market began to lose momentum in Q3 2007¹², while the commercial property market started to adjust in late-2007. This rebalancing and adjustment of the domestic economy in 2007 coincided with a negative global shock. The global crisis began to affect domestic economic growth in 2007/08 as growth in Ireland's trading partners weakened and there was deterioration in consumer confidence.

¹¹ A more extensive treatment of the causes and origins of the Irish crisis has been addressed in a number of inquiry-related reports such as Honohan (2010) and Regling and Watson (2010).

¹² There are a number of different sources for Irish house prices. Given the different methodologies and coverage among the indices, these data sets display different dates for the housing market peak. The Central Statistics Office residential house price index indicates that nominal house price across all national properties peaked in September 2007.

Chart 2: Unemployment Rate



Sources: IMF World Economic Outlook April 2012 edition, the Irish data is sourced from the CSO and the forecast from the Central Bank of Ireland Quarterly Bulletin Q3 2012.

Note: Start and end dates:
Ireland 2008-2013, Finland 1991-1995, Japan 1992-2001,
Norway 1987-1994 and Sweden 1991-1995.

With respect to *unemployment*, there appears to be similarities between Finland and Ireland (Chart 2). Although the other three countries all experienced increases in the rate of unemployment during the respective crisis periods, their experience is surpassed by the Finnish case, where the unemployment rate peaked at 16.6 per cent in 1994. Furthermore, the rate of Finnish unemployment declined very gradually after the peak remaining above 10 per cent for the following five years and currently remains above the initial 6 per cent (based on the IMF World Economic Outlook April 2012).

Between 2000 and 2007, the Irish labour market experienced almost full employment

with the unemployment rate remaining stable at an average of 4 per cent. From 2008 there has been an increase in the unemployment rate, to its current level, just below 15 per cent¹³. Drawing on the Finnish experience, it is clear that unemployment may remain elevated for some time in Ireland. This finding is further corroborated by other studies of macroeconomic developments preceding and following systemic crises. Reinhart and Reinhart (2010), examine if unemployment rates ever return to pre-crisis levels in a sample which includes both emerging and advanced economies that experienced systemic crises. The authors find that by 2009, unemployment rates in the majority of crisis countries (i.e., 10 out of 15 advanced and emerging economies) remain above pre-crisis rate. Although the unemployment rates are found to reduce somewhat over the period under study, the rates remain elevated.

Domestic macroeconomic imbalances also spilled over into *external imbalances* in Ireland. Despite entering EMU with a broadly balanced current account, by about 2007, Ireland was running a significant current account deficit of approximately 5 per cent of GDP. Much of the Irish deficit could be attributed to a loss of competitiveness relative to its trading partners¹⁴ and based on data in Milesi-Ferretti *et al* (2010), a decline in public savings.

Between late-2008 and 2010, the current account moved from a deficit of 5.7 per cent of GDP in 2008 to being broadly balanced in 2010 and moving into surplus in 2011 (Chart 3). Latest forecasts from the Central Bank of Ireland are for the surplus to grow in 2012 and 2013.

¹³ Please see Conefrey (2011) for a discussion of the evolution of Irish unemployment during the recession.

¹⁴ See Cassidy and O'Brien (2005 and 2007) for further details.

Chart 3: Current Account Balance



Sources: CSO, Central Bank of Ireland Quarterly Bulletin Q3 2012 IMF WEO April 2012 edition.

Note: Start and end dates:
Finland 1991-1995, Japan 1992-2001, Norway 1987-1993,
Sweden 1991-1995 and Ireland 2008-2013

Finland and Sweden also saw an improvement in their current account balance by the end of the crisis. In both cases, export growth, prompted by positive exchange-rate developments and combined with an improvement in external demand, was noted as a key factor in restoring economic recovery (see Box 1).

Export growth has been an important ameliorating factor in the Irish economic performance thus far in the crisis. However, while there has been some recovery in Ireland's competitiveness position, the uncertainty surrounding external demand at the current juncture implies that export

growth remains subject to downside risks. The scale of the global recession and the synchronised contraction in output across a number of advanced economies may be a key differentiating factor between the resolution of the Irish episode and the Nordic example. As noted in IMF (2009), export growth plays a smaller role in recessions that are synchronised across countries, leading to slower recovery.

3.2. Asset Prices

The following sub-section looks at developments in asset prices over the respective crisis period in our sample of five countries. Based on data availability, the focus is on house prices, equity prices and, to a lesser extent, commercial property prices.

Real house prices began to decline in Ireland in late-2007 and have declined by approximately 47 per cent since their peak. Table 2 benchmarks this real decline against international experience using OECD data¹⁵.

The peak in house prices is found to pre-date the beginning of each respective crisis start date, highlighting that property markets usually adjust in advance of economic contraction.

Persistent deflationary pressures in Japan are evident from Table 2 as real house prices continue to remain below pre-crisis peaks. With regard to the Nordic sample, Norwegian real house prices took longest to reach the trough of the series at seven years. However, although Finnish real house prices only declined peak-to-trough for four years, Chart 4 shows that it took 22 years for prices to return to pre-crisis peaks.

Table 2: Real House Prices

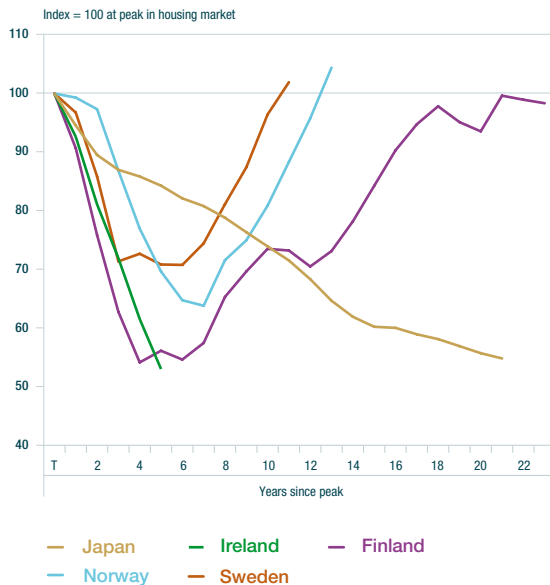
	Ireland	Japan	Finland	Norway	Sweden
Total % fall peak to trough	-46.92	-45.12	-45.79	-36.13	-29.18
No. of years (peak to trough)	ongoing	ongoing	4	7	6

Source: OECD data based on national sources.

Note: An average for the year was constructed using quarterly data. Real house price peaks 2007 for Ireland, 1991 for Japan, 1989 for Finland, 1986 for Norway and 1990 for Sweden.

¹⁵ The OECD data are based on national sources and are available up to Q2 2012.

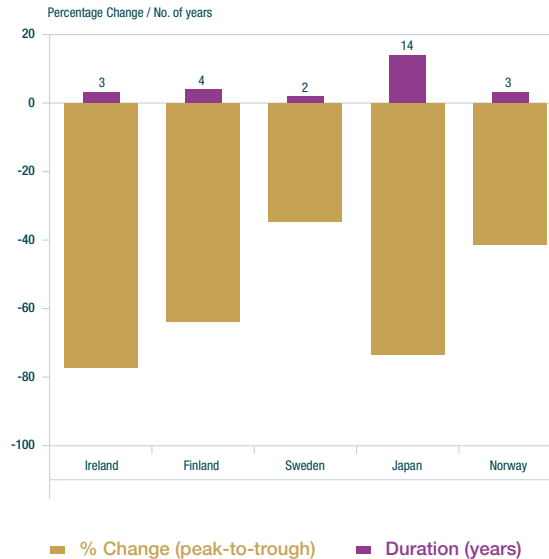
Chart 4: House Price Declines from Peak - Real House Prices



Source: OECD House Price Index.

Note: An average for the year was constructed using quarterly OECD data. Peaks in the housing market occurred at different times. In this Chart the peak for Japan is 1991, Ireland 2007, Finland 1989, Norway 1986 and Sweden 1990.

Chart 5: Real Equity Prices (Peak-to-Trough)



Source: Thomson Reuters Datastream.

Note: Data refers to ISEQ, OMX Helsinki, OMX Stockholm 30, TOPIX and OSLO OBX. Equity price indices are deflated using national consumer price index. Base year is 1990. Annual data are based on end-December figures in each year. Last observation is 2011. Peak-to-trough dates are as follows; Ireland 2006-2008, Finland 1988-1991, Sweden 1989-1990, Japan 1989-2002, Norway 1989-1992.

Although the literature focuses on real developments, there is much interest in *nominal house prices* especially for scenario analysis. Based on the latest available data, nominal house prices continue to decline in both Ireland and Japan. The time to recovery for nominal house prices (i.e., to reach pre-crisis peaks) using the Nordic sample varies from seven years (Sweden and Norway) to 13 years for Finland. Irish house prices peaked in 2007 and are currently in their fifth year of contraction.

Some studies find that nominal house prices tend to overcorrect following a period of significant adjustment. Using data from Sweden, Finland and the United Kingdom following their respective property crashes in the 1990s, Kennedy and McQuinn (2011), show that nominal house prices can remain below fundamental levels for a number of years. Across the three countries the authors find that house prices were 20 per cent below fundamental levels on average, over the period 1992 to 2000.

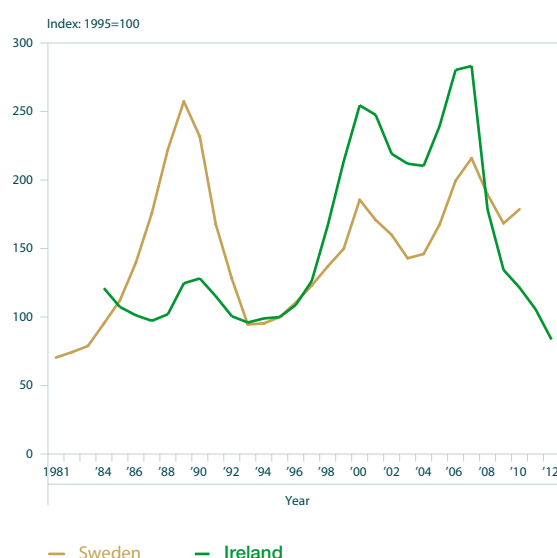
According to Reinhart and Rogoff (2009), the housing cycle is much longer in duration than the cycle in equity markets. Chart 5 compares the peak-to-trough performance of the major *equity indices*, in real terms, in our sample around the crisis periods. Ireland exceeds the experience of the other five episodes in terms of peak-to-trough declines. The majority of this decline was driven by the large initial weight of financial stocks in the Irish index prior to the crisis and occurred over the period 2006 through 2008. A brief rally in 2009, however, was followed by subsequent small declines in 2010 and 2011 as sentiment turned increasingly negative towards the Irish banks. As can be seen, Japanese equity prices also recorded a significant peak-to-trough real decline, although the time to reach this trough was more gradual lasting 14 years. As with house prices, the national stock market appears to adjust in advance of the official start date of the crisis.

Table 3: Real Commerical Property Prices - Office Market (Sweden and Ireland)

	% Fall (peak-to-trough)	No. of Years	Dates
Sweden	-63.2	5	1989-1993
Ireland	-70.5	ongoing	2007-Q2 2012

Sources: SCS/IPD, Thomson Reuters Datastream, Riksbank and Newsec.

Note: Data for Sweden are an average of real prices of offices located in city centres in Stockholm, Goteborg and Malmo. Data are sourced from the Riksbank's Financial Stability Report 2010. Irish data are deflated using the Consumer Price Index. Irish data cover the period 1984 to 2012 with Q2 2012 data used for 2012 observation.

Chart 6: Real Commercial Property Prices - Office Market (Sweden and Ireland)

Sources: SCS/IPD, Thomson Reuters Datastream and Riksbank.

Note: Data for Sweden are an average of real prices of offices located in city centres in Stockholm, Goteborg and Malmo. Data are sourced from the Riksbank's Financial Stability Report 2010. Swedish data covers the period 1981-2010 with 2010 Q3 data used for 2010. Irish data covers the period 1984-2012 with 2012 Q2 data used for the 2012 observation.

Developments in the *commercial property* market played a pivotal role in the Irish crisis. Between 2003 and 2006, the Irish commercial property market experienced a significant boom with annual appreciation rates in capital values significantly outstripping European counterparts by 2006 (Woods, 2007). Capital values contracted significantly from late-2007 and the scale of potential losses on the commercial book and resultant impact on solvency prompted the creation of the National Asset Management Agency in late-2009. Section 3 further discusses the impact on the banking sector from property-related losses.

The data on international commercial property prices, however, are not as widely available as house prices. Therefore, this paper is confined to comparing developments in real capital values in the office market in Ireland and Sweden¹⁶.

The latest data for Q2 2012 show that Irish real commercial property prices in the office sector continue to decline and are estimated to be circa 71 per cent below their peak in 2007 (Table 3). By comparison, Swedish real office capital values declined peak-to-trough by 63.2 per cent over five years during the crisis. Chart 6 also shows that average capital values for the office market in Sweden are found to remain below the peak achieved in 1989, based on data available up to Q3 2010, (i.e., 20 years).

¹⁶ See Herring and Wachter (1999) and ECB (2008) for a discussion of developments in Swedish commercial property during the crisis.

Box 2: Overview of Japan's Crisis

The Japanese banking crisis spanned the period 1997 to 2001 with recovery being affected by the Asian financial crisis in 1997 and the subsequent IT bubble collapse in 2000. After 2003, a recovery was ultimately possible only when financial and corporate sector problems at the heart of the crisis were addressed, allowing a resumption of policy stimulus and a favourable external environment to reinvigorate private demand. At the peak of the crisis between 1997 and 2001 Japan's output loss was estimated to be 45 per cent¹. This box provides an overview of, and the policy lessons from, Japan's lost decade drawing on a number of sources.

From the mid 1980s, Japan's economy experienced above-trend economic growth and near zero inflation. During this time there was also a decline in the country risk premium and a marked upward adjustment in growth expectations which boosted asset prices and fuelled rapid credit expansion. This was aided by financial liberalisation and the 1985 devaluation of the yen against the US dollar which had stimulated export performance resulting in increased foreign capital flows leading to a marked rise in speculation in the real estate sector. As financial institutions in Japan were heavily exposed to the real estate industry, declining real estate prices in 1990 created a significant amount of non-performing loans. The banking sector, being the dominant supplier of credit to the corporate sector in Japan, thus declined in capacity to extend new loans after the crisis which had an effect of decreasing business investment by the corporate sector. This resulted in an economic contraction which further undermined the asset quality of banks, thus trapping the financial sector and the real economy in a vicious circle that has dragged the economy into a recession.

Before the crisis, Japan's banking system was formed around a 'main bank' system. The main bank was delegated by other lenders to act as a quasi-insider monitor of the borrowing firm and as a mediator when borrowers fall into stress. Therefore, the effectiveness of the main bank system began to suffer when the main banks themselves came under stress. Japan's response was initially delayed due to weak accounting practices and regulatory forbearance, this masked the non-performing loans for many years and limited remedial action by both the government and the banks themselves. It was not until the 1997 Asian Crisis, when the external environment deteriorated unexpectedly, that these mounting losses on failed real estate loans lead to a wave of large scale failures in the financial sector. The financial crisis was to lead to the 1998 banking law reform which created a financial supervisory agency to oversee the rehabilitation of the financial sector and to improve supervision.

The main lessons as outlined by Hoshi and Kashyap (2010) that can be gained from the Japanese experience included:-

(A) The possibility that banks will refuse equity injections due to potential reputational risk. Banks feared applying for funds would be admitting to larger future losses than had been previously disclosed. In the case of Japan, the problem was initially solved by all major banks asking for the same amount of public funds which turned out to be too small to resolve the capital shortage for most banks.

(B) The need to make rescue packages large enough to restore confidence. Between 1992 and 2005, Japanese banks wrote off 96 trillion yen (circa 19 per cent of GDP), in addition to the creation of various asset management companies and bank recapitalisation schemes.

¹ Taken from Laeven and Valencia (2010). 'Resolution of Banking Crises: The Good, the Bad, and the Ugly,' IMF Working Paper and Hoshi and Kashyap (2010).

Output Loss is calculated as the cumulative difference between actual and trend real GDP, expressed as a percentage of trend real GDP for the period [T, T+3] where T is the starting year of the crisis. Trend real GDP is computed by applying an HP filter ($\lambda=100$) to the GDP series over [T-20, T-1].

Box 2: Overview of Japan's Crisis

(C) There are limits to asset purchase programmes in fixing solvency problems. Solvency issues need to be addressed in addition to the purchase of troubled assets.

(D) The importance of tying assistance to credible inspection programs. The initial bank recapitalisation of 1998 did not include inspections, in part, to induce the banks to accept public capital without an associated stigma.

(E) The importance of restructuring troubled loans. In the case of Japan, this was delayed as land prices were still falling and according to Hoshi and Kashyap (2010) the asset management companies presumably did not want to realise capital losses. It was not until the early 2000s that an attempt was made to restructure the loans and rehabilitate the underlying borrowers, thus addressing the sources of the bad loan problem.

(F) There is a need to put in place a resolution mechanism. In the case of Japan, nationalisation was used on two banks following the 1998 passing of the 'Financial Revitalisation Act'.

(G) The dangers of politically directed lending. In the case of Japan the nature of the non-performing loan problem changed in the early 2000s, and the loans to small and medium enterprises (SMEs), which the government required the recapitalised banks to increase, became the central problem rather than real estate loans.

Japan increased fiscal policy during the 1990s to include increased investment in public works, an expansion of credit guarantees for SME lending, employment support and temporary decreases in income and consumption tax. Monetary policy was also eased with a shift to a zero interest rate policy and quantitative easing introduced. The banking reform and restructuring can be classified into four main areas² namely asset management companies, recapitalisation programs, resolution mechanisms of failed banks and the Takenaka plan of 2002: a plan to end the non-performing loans problem at major Japanese banks through a reformed regulatory inspection processes.

In addition to introducing measures to restore the banking sector, macroeconomic developments also aided recovery in Japan. Export expansion to large and growing economies especially China and the US, contributed to the macroeconomic recovery in the mid-2000s.

² A more detailed discussion of these policy responses can be found in Hoshi, T. and A.K. Kashyap (2010), 'Will the U.S. Bank Recapitalization Succeed? Eight Lessons From Japan'. *Journal of Financial Economics*, Vol 97, pp.398-417.

The Takenaka plan sought to have banks make more rigorous evaluation of assets using discounted expected cash flows or market prices of non-performing loans, to check cross-bank consistency in classifying loans to large debtors, to publish the discrepancy between the banks self-evaluations and the FSA's evaluations, to be prepared to inject public funds if necessary, to prohibit banks from declaring unrealistically large deferred tax assets and to impose business improvement orders for banks that substantially underachieved the realised plans.

In summary, the international experience indicates that although GDP can recover within a number of years, unemployment can remain elevated for some time. In the Irish case, the recovery in the level of real GDP is slower than in any of the countries we examined. Looking at potential drivers of recovery, export growth and exchange-rate developments were found to be pivotal in reviving economic recovery among our sample, indicating an important

role for external macroeconomic developments in addition to currency arrangements. With respect to real house prices, the data show that it can take a significant number of years (i.e., 22 years for Finland) before pre-crisis levels are regained if ever (Japan) although the start of the period of adjustment pre-dates the economic downturn. Up to 2010, Swedish office values remained below pre-crisis peaks.

4. Banking Sector Developments

4.1. Asset Quality and Profitability

Following the overview of macro economic developments, this section focuses on the impact on the banking sector during the respective crisis episodes. In Table 4, the scale of the individual banking crises in terms of the impact on asset quality, profitability and credit developments is compared across the sample. This table extends the work of Sandal (2004)¹⁷ on the three Nordic countries to include Japan and Ireland. With the exception of non-performing loans (NPL), Norway appears to have been the least affected by the banking crisis, while Finland was most adversely affected among the Nordic countries. In Section 2, it was shown that macroeconomic

developments were also relatively more negative during the crisis in Finland.

There are a number of reasons why the impact of the Norwegian banking crisis was much less severe than the Swedish or Finnish crisis. Drees and Pazarbaşıoğlu (1995) highlight the fact that the corporate sector in the latter two countries had borrowed heavily in foreign currency prior to the crises and the subsequent depreciations of all three currencies between 1986 and 1992 severely impacted these borrowers. Timing differences were also important as the banking crises in Sweden and Finland occurred during a severe economic downturn, while in Norway the banking crisis became systemic when there were already emerging signs of recovery in the real economy (Sandal, 2004).

Table 4: Comparison of Systemic Banking Crises

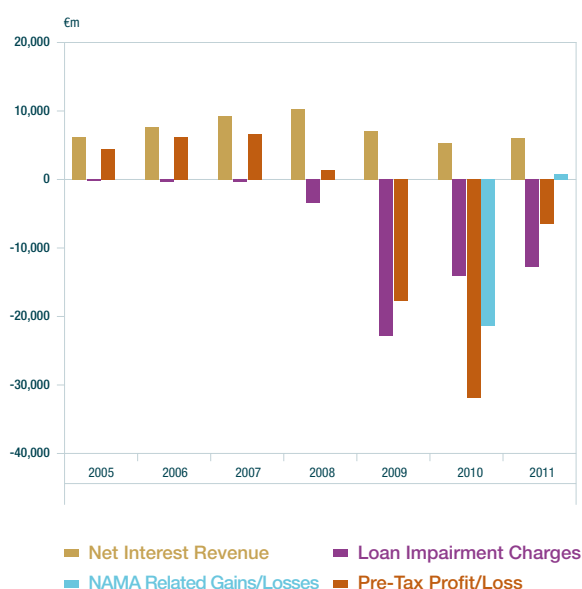
	Finland	Norway	Sweden	Japan¹	Ireland
Crisis Period	1991-1993	1987-1993	1991-1993	1992-2001	2008-ongoing
Peak Year of Crisis (acc. To bank profitability)	1992	1991	1992	1998	2010
Loan Loss in Peak year (% of GDP)	4.4	2.8	3.8	2.7	9 23 (incl. NAMA)
Peak Non-performing loans (as % of total loans)	13	16.4	13	35	25.4 (as at 2012Q1)
Cumulative fall in bank lending (%)	-33.5 (1991-1995)	-4.9 (1990-1991)	-26.4 (1990-1995)	-26.1 (1992-2001)	-8.5 (2009-2011)
Number of years before bank lending was back to pre-crisis level	9	4	10	ongoing (data availability up to 2008)	ongoing
Number of years from crisis peak to profitable bank sector	4	2	2	5	ongoing

Sources: Sandal in Moe, Solheim and Vale (2004) for majority of data on Sweden, Finland and Norway.

- Data on NPL for Norway, Sweden, Finland and Japan taken from Laeven and Valencia (2012). Cross-country NPL data may differ due to differing accounting regimes.
- ¹Hoshi and Kashyap (2010).
- Bank lending data from Japan is based on OECD consolidated banking data.
- Loan losses for Ireland in 2010 are based on total loan impairment charges across the six covered institutions from the published annual accounts of the Irish banks. These figures may slightly overstate the extent of the loan losses as some of these impairment charges may be written back to the bank if valuations improve. Consistent write-off data were not available.
- Peak NPL data for Ireland are based on outstanding level of impaired loans for six covered institutions from Central Bank of Ireland internal Supervisory data. The peak year for the ratio was found to be Q1 2012 which is also the latest available observation for the series.
- The Irish cumulative fall in Bank lending is based on the six covered institutions. This data removes the effects of NAMA etc on bank lending.

¹⁷ Sandal uses a different dating system for the respective episodes within the Nordic crisis than is used in this paper which is based on Laeven and Valencia (2010).

Chart 7: Evolution of Income Statement for Irish Banks (2005-2011)



Sources: Published Accounts and Fitch Ratings.

Note: NAMA loans were recorded as 'held for sale' by banks until transfer. As there was a discount to carrying value at transfer, the loss upon transfer is recorded in profit/loss on other income thereby reducing operating profit/loss. These losses are not included in loan impairment charges. Information on the impact of NAMA is taken from the notes to the annual accounts for the participating institutions.

While there are some difficulties in comparing NPL data across countries, the broad trends show that Japan experienced significant erosion of credit quality, recording the highest peak non-performing loan ratio in the sample. In Japan, the heavy exposure to real estate led to significant losses when real estate prices adjusted. Public disclosure of NPLs was almost non-existent prior to the mid-1990s, thereby limiting market discipline. A paper by the Bank for International Settlements (2004) also highlights that the NPL problem persisted throughout the crisis due to a slow policy response and banks were heavily under-provisioned in the early-1990s (See Box 2). As at Q1 2012, Irish NPL as a percentage of total loans reached 25.4 per cent, surpassing the Nordic experience. As noted in Box 1, swift and transparent policy response in the Nordic case facilitated an early resolution of the crisis.

Table 4 shows that the scale of the loan losses experienced by the Irish banking sector exceeds that of the other systemic crisis episodes. The choice of 2010 as peak year for Ireland was based on pre-tax profit/loss figures for the main domestic banks and matches the approach for the other countries. Loan losses as a percentage of GDP are highest for Ireland using 2010 data and are almost double those of Finland. In terms of understanding the adjustment, total assets of the Irish banking sector (circa €447 billion)¹⁸ were almost three times nominal GDP (€156.5 billion) in 2010.

Loan losses as proxied by total loan impairment charges were actually highest in 2009 (Chart 7). However, this was due to the fact that credit losses arising from the transfer of assets to NAMA are not recorded in loan impairments. These assets were classified as 'held for sale' by banks prior to transfer. As there was a haircut imposed by NAMA upon purchase, Irish banks recorded a loss on the carrying amount which reduced operating profit/loss. This transfer of assets to NAMA meant that the participating institutions were forced to crystallise credit losses at an earlier stage than perhaps otherwise would have been the case. As noted from other crises, loss recognition is one of the key actions needed to resolve banking crises. Chart 7 shows that the NAMA-related losses (including impairments) booked by the participating institutions totalled €21.4 billion in 2010.

Irish banks entered the crisis with a concentrated exposure to property-related lending funded by short-term wholesale funding. Supervisory shortcomings combined with poor internal credit risk management further increased the vulnerability to credit risk (see Honohan, 2009). The extent of the credit risk raised solvency concerns, which adversely affected the funding position of the Irish banks during the crisis¹⁹.

¹⁸ See Aggregated Banking Data: Covered institutions under consolidated banking data on the Central Bank of Ireland website. www.centralbank.ie.

¹⁹ See McQuinn and Woods (2012) for an analysis of corporate deposit flows of Irish banks from 2009 to 2010.

The deterioration in the financial position of borrowers as a result of the economic recession combined with a sharp fall in collateral values led to a significant increase in loan losses and decline in profitability for Irish banks (Chart 7). Furthermore Irish banks had relied heavily on net interest income for earnings prior to the crisis; interest income on lending was driven by volume rather than margin. As transactions in the mortgage and commercial property market contracted from 2007, banks lost a key source of income. Higher funding costs also served to compress margins

International experience shows that it can take as long as four or five years for banks to return to profitability following systemic crises. The Irish banks posted pre-tax losses over the three-year period 2009 through 2011. It is likely that earnings will remain under pressure for Irish banks in the short-term. The Central Bank of Ireland's Macro-Financial Review (2012) highlights that income/earnings risk remains acute for the Irish banks due to higher funding costs, the need to actively manage impaired assets and to re-orientate business models following deleveraging and the re-balancing of the drivers of the domestic economy.

4.2. Credit and Deleveraging

From Table 4, it can be seen that all four of the comparison countries experienced significant declines in lending during the banking crisis. Also, using the Nordic data, the table shows that credit growth can remain muted for a period of four years to 10 years before recovering fully. As with asset prices, Japanese credit growth still has not recovered. Using the adjusted growth rate for lending to the Irish private sector, the cumulative decline in Irish lending was just 8.5 per cent over the three-year period to end-2011 (This figure removes the effect of NAMA on Bank lending). More recent data confirms that credit continues to decline.

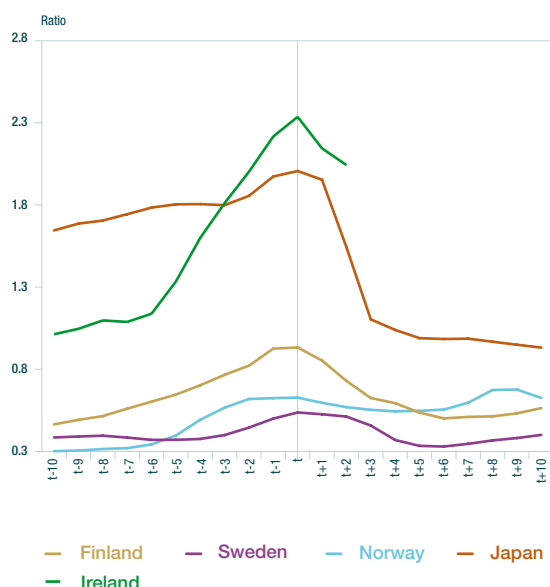
In our sample, only Sweden, Finland and Ireland experienced a pre-crisis credit boom (Laeven and Valencia, 2012). Table 4 shows the subsequent marked contraction in credit across both Sweden and Finland. There have

been a number of studies that investigated the importance of demand and supply effects on credit in these countries during the crises. From a policy perspective, it is important to understand if this contraction in credit is due to a decline in demand or can be attributed to a curtailment in supply as a result of heightened bank risk (i.e., 'credit crunch'). The latter effect may benefit from policy intervention.

Englund (1999) finds evidence that weak credit demand may help to explain the muted credit developments in Sweden rather than a credit crunch during the crisis. With regard to Finland, Pazarbaşıoğlu (1997) also argues that the decline in bank lending in Finland during the crisis was mainly due to a decline in credit demand as many borrowers were heavily indebted. Although some evidence was found that banks reduced credit supply by raising non-price terms on loans in certain periods during the crisis (e.g., 1994) in response to declining credit quality, Pazarbaşıoğlu concludes that up to 1995, there was generally no credit rationing in the Finnish market. Another study on Finland also concludes that the asset-quality concerns rather than solvency contributed significantly to the slowdown in lending in 1991 and 1992 (Vihriälä, 1997). Collateral issues were to the fore rather than a credit crunch.

A number of papers focus on the ratio of private-sector credit to gross domestic product (PSC/GDP) to investigate the scale of deleveraging following a crisis. One such example is McKinsey (2010), which also covers the Nordic (Sweden and Finland only) and Japanese crises. The study categorises the various episodes of deleveraging based on common features. The period of deleveraging following the crises in Sweden and Finland are classified by McKinsey as falling into the "Belt Tightening" archetype, whereby the stock of credit grows much more slowly than GDP or the total outstanding credit declines. In the median case across all episodes in this category, credit growth slows to 2 per cent per annum down from 21 per cent year-on-year growth in the period prior to the crisis. In these episodes deleveraging usually begins about two years into the crisis and while GDP recovers relatively quickly, muted credit growth in the later period leads to further deleveraging.

Chart 8: Private-Sector Credit and Gross Domestic Product Ratio



Sources: World Bank Financial Structures Database, CSO and IMF.

Japan is found to be an example of where only the domestic economy does not delever as the reduction in private-sector gearing was offset by the increase in public debt to GDP ratio. McKinsey (2010) finds that the period of deleveraging lasts about six/seven years on average: a similar result is found in Reinhart and Reinhart (2010).

Chart 8 and Table 5 look at the Irish PSC/ GDP ratio relative to the four countries in the sample. The significant increase in the Irish ratio prior to peak is evident. The Irish ratio has only fallen by 9.6 per cent from peak in 2009, having increased by 143 per cent in the preceding decade (These figures are

inflated due to the International Financial Services Centre). The scale of the increase in the ratio is much greater than the experience in the other four countries. If international experience is a guide it is likely that this ratio may continue to decline for a number of years. The research indicates that although economic output may recover relatively quickly following a severe banking crisis, credit growth may remain weak for some time in Ireland.

Given that many Irish small and medium sized enterprises may not have access to alternative sources of external financing²⁰, full economic recovery may depend on the resumption of normal intermediation activities by the domestic banking sector. This is especially important for credit-worthy firms who may be pivotal in restoring aggregate demand and reducing unemployment.

Recent work on the behaviour of Irish households shows that Irish households are currently engaging in debt consolidation [Cussen and Phelan (2010)]. The Irish private sector was heavily indebted by international comparison prior to the crisis and it will take some time for the excess leverage to be reduced. Therefore, the combination of debt consolidation and lower income levels imply that aggregate credit demand from households may be weak in Ireland at present.

Our analysis of banking sector developments during systemic crises indicate that profitability may not return for up to four or five years due to significant erosion in credit quality and loss of income. Early loss recognition and swift policy responses are considered instrumental in crisis resolution. International experience indicates that credit growth can

Table 5: Private-Sector Credit to GDP Ratio

	Ireland	Finland	Sweden	Norway	Japan
% increase trough to peak	143.0	100.6	39.4	111.5	22.0
% decrease peak to trough	9.6	-44.9	-37.8	-13.5	-53.6
No. of years peak to trough	ongoing	7	5	5	ongoing (up to 2009)

Sources: World Bank Financial Structures Database, CSO and IMF.

²⁰ See Lawless et al., 2012 for a discussion of SMEs in Ireland.

remain weak for a number of years even after output begins to recover, especially in countries that experienced pre-crisis credit booms (i.e., Sweden and Finland). From a policy perspective disentangling demand and supply effects is important for discussing future measures.

5. Conclusion

The overall aim of this paper was to provide a comparative and historical context to the Irish financial crisis for a policy analysis perspective. Four episodes of financial stress were chosen that experienced a systemic banking crisis and where adjustment in the domestic property market played a key role. The sample consisted of four advanced economies (i.e. the three Nordic countries in the early-1990s and the Japanese crisis 1997-2001)

In terms of macroeconomic aggregates, the international experience indicates that although GDP can recover within a number of years, unemployment can remain elevated for some time. Our study shows that the recovery in the level of real GDP in Ireland has been slower than in any of the countries in the sample we have examined. Moreover, medium-term forecasts for Irish GDP suggest that it may be another two to three years before real GDP returns to 2007 peak levels. This also suggests that the unemployment rate will remain elevated for some time. Past episodes of systemic distress indicate that Irish real property prices, both residential and commercial, may take a significant number of years (ranging from 11 years to 22 years) to recover fully, although the start of the period of adjustment pre-dates the economic downturn in all cases.

Turning to the banking sector, all four crisis countries experienced similar patterns of loan losses with credit institutions taking from between two to five years to return to profitability. The clear lesson from international experience indicates that early loss recognition and swift policy responses are considered instrumental. International experience also highlights that credit growth remains subdued in the years following a crisis, even as the economy begins to recover.

Clearly the relative scale of the Irish banking crisis, effectiveness of the policy responses and developments in the external macroeconomic environment will all play a role in the evolution and eventual resolution of the crisis. These factors, notwithstanding, past experience provides a useful guide for scenario analysis and in understanding certain paths to recovery for near-term forecasting.

Appendix 1

Timeline of Financial Crisis				
	Year	Bordo and Eichengreen 2002	Reinhart and Reinhart 2010	Laeven and Valencia 2010 and 2012
Finland	1989	Peak		
	1991	Banking Crisis Currency Crisis	Financial Crisis Date	Start Date of Crisis
	1993	Trough Currency Crisis		Systemic (Feb, 1993) Currency Crisis
	1995			End Date of Crisis
Japan	1990	Peak		
	1992	Banking Crisis	Financial Crisis Date	
	1996	Peak		
	1997	Banking Crisis Currency Crisis		Start Date of Crisis Systemic (Nov, 1997)
	1998	Banking Crisis Currency Crisis		
	2001			End Date of Crisis
Norway	1986	Peak Currency Crisis		
	1987	Banking Crisis		
	1990	Trough		
	1991		Financial Crisis Date	Start Date of Crisis Systemic (Oct, 1991)
	1993			End Date of Crisis
Sweden	1986	Peak		
	1989	Trough Banking Crisis		
	1991	Banking Crisis	Financial Crisis Date	Start Date of Crisis
	1992	Currency Crisis		Systemic (Sept, 1991)
	1993	Trough		Currency Crisis
	1995			End Date of Crisis

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Note: Data published in the Statistical Appendix for most recent months or quarters may be subject to revision.

Section A

Money and Banking

Table A.1: Summary Irish Private Sector Credit and Deposits

	Credit Advanced to Irish Private Sector						
	Households				Non-financial corporations		
		Loans for house purchase	Consumer credit	Other loans		Loans	Securities
	1	2	3	4	5	6	7
Outstanding amounts – € million							
2011							
July	128,692	98,020	17,416	13,256	89,480	89,301	179
August	128,234	97,771	17,283	13,179	88,711	88,568	143
September	128,302	97,964	17,172	13,166	89,193	89,045	147
October	111,009	80,798	17,139	13,073	87,963	87,817	146
November	110,832	80,723	17,009	13,101	88,354	88,208	147
December	110,287	80,396	16,617	13,275	88,344	88,185	159
2012							
January	109,601	80,190	16,220	13,191	87,687	87,534	153
February	109,218	79,954	16,107	13,156	87,292	87,142	151
March	108,953	79,874	15,916	13,164	87,343	87,192	151
April	109,149	81,031	14,928	13,190	87,210	87,059	150
May	108,947	80,819	14,960	13,169	87,211	87,056	154
June	108,082	80,012	14,941	13,130	86,485	86,332	153
July	106,929	79,166	14,700	13,062	86,455	86,300	155
Transactions – € million							
2011							
July	- 709	- 334	- 293	- 83	164	159	5
August	- 443	- 242	- 127	- 74	- 437	- 436	- 1
September	- 183	- 83	- 119	19	519	514	5
October	- 613	- 319	- 245	- 49	- 454	- 450	- 4
November	- 363	- 221	- 142	- 1	40	39	1
December	- 65	37	- 15	- 88	- 652	- 665	13
2012							
January	- 690	- 216	- 394	- 80	- 554	- 548	- 6
February	- 355	- 224	- 107	- 23	- 169	- 167	- 2
March	- 167	- 59	- 115	7	39	38	1
April	- 642	- 188	- 403	- 51	- 326	- 326	-
May	- 264	- 242	21	- 44	- 334	- 338	4
June	55	94	- 15	- 24	- 401	- 399	- 2
July	- 471	- 157	- 225	- 88	- 294	- 297	2
Growth rates – per cent							
2011							
July	- 3.9	- 2.4	- 13.5	- 0.6	- 2.6	- 2.3	- 66.7
August	- 4.0	- 2.4	- 13.8	- 1.2	- 2.6	- 2.4	- 66.9
September	- 4.0	- 2.5	- 13.7	- 0.7	- 1.7	- 1.4	- 65.6
October	- 3.9	- 2.6	- 13.3	0.7	- 1.9	- 1.8	- 60.0
November	- 4.1	- 2.7	- 12.9	- 2.0	- 1.7	- 1.5	- 59.5
December	- 3.6	- 2.5	- 6.9	- 8.9	- 1.9	- 1.8	- 50.1
2012							
January	- 3.9	- 2.4	- 11.8	- 3.3	- 2.2	- 2.2	- 56.6
February	- 4.0	- 2.5	- 12.0	- 3.4	- 2.3	- 2.3	- 56.4
March	- 3.9	- 2.4	- 11.6	- 3.1	- 2.3	- 2.2	- 53.9
April	- 4.0	- 2.5	- 12.2	- 3.4	- 1.9	- 1.8	- 54.3
May	- 3.9	- 2.5	- 11.3	- 3.5	- 2.1	- 2.1	- 50.6
June	- 3.7	- 2.2	- 11.1	- 3.7	- 2.9	- 2.9	9.6
July	- 3.6	- 2.1	- 11.0	- 3.7	- 3.4	- 3.4	8.0

Notes:

- For commentary on developments in a given month see the relevant Money and Banking Statistics information release at: [Credit, Money and Banking Statistics: Publications and Releases](#)
- For a full set of explanatory notes see: [Money and Banking Statistics Explanatory Notes](#)
- Data in Money and Banking Statistics is collected with reference to business written out of the within-the-State offices of the entire population of credit institutions in the Republic of Ireland. The most up to date list of these institutions is available on the Central Bank website here: [Credit Institutions resident in the Republic of Ireland](#)
- Credit Unions entered the reporting population for Money and Banking Statistics in January 2009.
- Prior to December 2010, the outstanding amount of loans is reported on a net of impairment provisions basis. As of December 2010, the outstanding amount of loans is reported on a nominal basis, i.e. gross of impairment provisions, which, all else being equal, would lead to an increase in the reported outstanding amount of loans in that month.
- In December 2010 the outstanding amount of loans, deposits and other asset and liability instruments across a number of categories has been reduced following the exit of a credit institution from the Irish market.
- In all instances the underlying transactions and growth rates are fully adjusted to account for non-transaction related effects (e.g. change in reporting population, revaluations, exchange rate movements) and accurately reflect the level of activity in a particular category through time.

Table A.1 – continued

Insurance corporations and pension funds/Other financial intermediaries			Irish Private Sector Deposits				
Total			Total				
	Loans	Securities		Households	Non-financial corporations	Insurance corporations and pension funds/Other financial intermediaries	
8	9	10	11	12	13	14	
							Outstanding amounts – € million
							2011
112,817	43,198	69,619	167,378	91,795	31,073	44,510	July
109,769	42,501	67,268	166,152	91,239	31,412	43,501	August
108,526	43,176	65,350	163,992	91,769	31,209	41,014	September
124,753	41,869	82,884	162,993	91,919	31,550	39,524	October
124,914	41,980	82,934	162,137	90,734	31,559	39,844	November
124,950	42,163	82,787	162,584	91,314	30,870	40,401	December
							2012
124,120	41,638	82,482	162,037	91,245	29,795	40,998	January
123,427	41,146	82,282	162,254	91,190	29,793	41,271	February
123,092	41,345	81,748	163,141	92,127	29,742	41,272	March
120,436	40,171	80,264	167,107	91,882	30,099	45,127	April
120,794	40,665	80,129	167,173	91,991	30,328	44,854	May
118,128	40,747	77,381	163,846	92,094	30,236	41,516	June
119,018	41,545	77,473	165,899	91,975	30,806	43,119	July
							Transactions – € million
							2011
- 1,273	- 1,025	- 248	- 980	- 445	95	- 629	July
- 1,507	- 528	- 979	- 896	- 510	459	- 845	August
- 2,024	- 98	- 1,927	- 2,653	485	- 420	- 2,718	September
- 2,257	- 1,684	- 573	556	184	464	- 92	October
- 481	- 531	49	- 1,315	- 1,210	- 155	50	November
- 215	- 271	56	109	540	- 68	- 363	December
							2012
- 622	- 349	- 273	- 487	- 56	- 1,079	648	January
- 423	- 252	- 171	156	25	62	69	February
- 223	193	- 415	801	761	18	23	March
- 2,864	- 1,397	- 1,466	3,795	- 271	291	3,775	April
- 257	- 166	- 91	- 63	48	44	- 155	May
- 2,318	257	- 2,574	- 3,193	120	- 38	- 3,275	June
547	428	119	1,881	- 159	465	1,574	July
							Transactions – € million
							2011
10.6	- 12.9	27.6	- 10.4	- 5.6	- 11.4	- 18.8	July
7.3	- 14.0	22.2	- 10.4	- 5.4	- 10.1	- 20.0	August
6.0	- 13.3	19.1	- 10.5	- 4.7	- 8.2	- 22.9	September
1.2	- 16.7	13.3	- 11.0	- 4.5	- 7.8	- 25.1	October
- 5.2	- 19.7	4.2	- 9.0	- 3.4	- 7.7	- 20.4	November
- 10.1	- 16.6	- 6.3	- 7.3	- 3.4	- 6.0	- 15.4	December
							2012
- 9.9	- 16.0	- 6.3	- 6.9	- 3.0	- 9.1	- 12.6	January
- 9.8	- 16.5	- 6.0	- 5.9	- 2.2	- 8.0	- 10.8	February
- 9.6	- 15.3	- 6.3	- 4.3	- 0.9	- 5.3	- 9.7	March
- 9.9	- 14.4	- 7.3	- 3.5	- 1.3	- 3.5	- 7.5	April
- 9.4	- 14.3	- 6.5	- 3.1	- 0.5	- 3.3	- 7.9	May
- 11.8	- 13.0	- 11.0	- 2.5	- 0.4	- 1.1	- 7.8	June
- 10.4	- 10.0	- 10.6	- 0.8	- 0.1	0.1	- 3.0	July

Table A.2: Financial Statement of the Central Bank of Ireland

Assets									
		Gold and Receivables	Lending to euro area credit institutions relating to monetary policy operations in euro						
				Main refinancing operations	Longer- term refinancing operations	Fine- tuning reverse operations	Structural reverse operations	Marginal lending facility	Credits related to margin calls
Outstanding amounts – € million									
2011									
26 August	175,931	202	97,878	24,490	73,388	-	-	-	-
30 September	176,573	233	100,355	23,090	77,265	-	-	-	-
28 October	171,918	233	100,940	20,475	78,765	-	-	1,700	-
25 November	172,188	233	102,910	31,845	71,065	-	-	-	-
30 December	176,258	233	107,236	30,520	76,286	-	-	430	-
2012									
27 January	164,054	235	92,616	23,060	69,556	-	-	-	-
24 February	158,784	235	87,121	19,315	67,806	-	-	-	-
30 March	156,423	235	85,071	6,050	79,021	-	-	-	-
27 April	156,492	240	86,826	7,810	79,016	-	-	-	-
25 May	154,241	240	84,456	4,290	80,166	-	-	-	-
29 June	158,199	240	84,644	7,648	76,996	-	-	-	-
27 July	155,151	241	80,020	11,324	68,696	-	-	-	-
31 August	154,399	241	79,121	11,445	67,676	-	-	-	-
Liabilities									
		Banknotes in circulation	Liabilities to euro area credit institutions relating to monetary policy operations in euro						Other liabilities to euro area credit institutions in euro
				Current accounts (covering the minimum reserve system)	Deposit facility	Fixed- term deposits	Deposits related to margin calls	Fine- tuning reverse operations	
Outstanding amounts – € million									
2011									
26 August	175,931	12,428	8,834	6,665	169	2,000	-	-	-
30 September	176,573	12,521	6,730	4,375	855	1,500	-	-	-
28 October	171,918	12,747	7,174	4,929	750	1,495	-	-	-
25 November	172,188	12,572	6,687	4,092	1,245	1,350	-	-	-
30 December	176,258	12,978	6,029	3,734	2,295	-	-	-	-
2012									
27 January	164,054	12,282	6,059	2,299	2,360	1,400	-	-	-
24 February	158,784	12,654	6,262	2,739	3,523	-	-	-	-
30 March	156,423	12,706	6,901	1,913	3,807	1,181	-	-	-
27 April	156,492	12,765	6,198	2,385	2,856	957	-	-	-
25 May	154,241	12,838	4,002	1,957	2,045	-	-	-	-
29 June	158,199	13,053	6,453	1,315	5,138	-	-	-	-
27 July	155,151	13,065	5,222	2,277	2,945	-	-	-	-
31 August	154,399	13,092	3,353	1,944	1,409	-	-	-	-

Notes:

- For a full set of explanatory notes see:
<http://www.ecb.int/press/pr/wfs/html/wfs-userguide.en.html>
- An accounting reclassification took place, in month ending 27 April 2012, in order to harmonise the disclosure of the Emergency Liquidity Assistance (ELA) provided by Eurosystem central banks to domestic credit institutions under other claims on euro area credit institutions denominated in euro.

Table A.2 – continued

Assets

Other claims on euro area credit institutions in euro	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Claims on non-euro area residents in foreign currency	Securities of other euro area residents in euro	General Government debt in euro	Other assets
181	153	1,201	1,308	19,059	-	55,949
405	185	1,376	1,357	19,406	-	53,256
299	176	1,151	1,372	20,019	-	47,728
448	31	1,168	1,071	20,599	-	45,728
449	1,174	1,233	1,075	20,697	-	44,161
461	2,108	1,101	1,082	20,997	-	45,454
728	2,490	1,009	1,081	20,887	-	45,233
549	2,693	1,101	1,068	20,711	-	44,995
41,348	2,916	1,322	1,045	20,438	-	2,357
41,498	2,926	1,258	1,045	20,462	-	2,356
42,375	5,545	1,260	1,051	20,440	-	2,644
41,600	6,242	1,332	1,091	20,995	-	3,630
40,800	6,020	1,226	1,779	21,078	-	4,134

Liabilities

Debt certificates issued	Liabilities to other euro area residents in euro	Liabilities to non-euro area residents in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents in foreign currency	Counterpart of Special Drawing Rights allocated by the IMF	Revaluation Accounts	Capital and reserves	Other liabilities
-	11,279	19	-	-	858	201	1,723	140,589
-	13,851	20	-	-	897	291	1,723	140,540
-	14,041	19	-	-	897	291	1,723	135,026
-	13,748	17	-	-	897	291	1,723	136,253
-	15,574	23	20	-	897	291	1,723	138,723
-	18,615	35	-	-	920	303	1,723	124,117
-	18,385	28	-	-	920	303	1,953	118,279
-	18,967	26	-	-	920	303	1,893	114,707
-	17,192	29	-	-	900	346	1,893	117,169
-	16,999	29	-	-	900	346	1,893	117,234
-	17,173	27	-	-	900	346	1,893	118,354
-	20,526	72	-	-	935	339	1,893	113,099
-	23,425	25	-	-	935	339	1,893	111,337

Table A.4: Credit Institutions – Aggregate Balance Sheet

	Total Assets								
		Loans to Irish residents				Holdings of securities issued by Irish residents			
			Monetary financial institutions	General government	Private sector		Monetary financial institutions	General government	Private sector
	15	16	17	18	19	20	21	22	23
Outstanding amounts – € million									
2011									
July	1,029,197	405,683	115,044	29,449	261,191	96,544	16,285	10,462	69,798
August	1,027,999	406,399	117,550	29,547	259,303	96,893	17,407	12,074	67,411
September	1,046,213	408,473	118,328	29,622	260,524	95,537	17,269	12,772	65,497
October	1,031,458	389,832	119,527	29,610	240,695	113,581	17,593	12,958	83,030
November	1,028,538	390,602	119,989	29,593	241,020	113,931	18,571	12,279	83,081
December	1,025,896	383,645	113,322	29,687	240,636	113,613	17,638	13,029	82,946
2012									
January	1,003,946	379,202	110,701	29,728	238,773	115,197	18,216	14,346	82,635
February	968,241	374,145	106,538	30,102	237,505	115,525	18,387	14,706	82,432
March	948,885	370,873	103,643	29,741	237,490	114,383	17,841	14,643	81,898
April	940,084	362,896	98,196	28,321	236,380	116,492	18,486	17,591	80,415
May	953,834	363,399	98,683	28,048	236,669	116,020	18,616	17,121	80,283
June	951,123	362,509	99,316	28,031	235,162	114,069	19,009	17,527	77,534
July	928,823	335,501	72,716	28,012	234,773	115,749	19,624	18,497	77,628

	Total Liabilities							
		Deposits from Irish residents				Debt securities issued		
			Monetary financial institutions	General government	Private sector	Irish resident	Euro area	Rest of the world
	32	33	34	35	11	36	37	38
Outstanding amounts – € million								
2011								
July	1,029,197	281,576	111,908	2,290	167,378	32,177	21,288	50,454
August	1,027,999	281,620	113,107	2,361	166,152	31,396	21,946	48,276
September	1,046,213	282,226	115,482	2,752	163,992	31,053	21,739	47,645
October	1,031,458	283,180	117,722	2,465	162,993	31,951	20,913	46,004
November	1,028,538	282,550	117,899	2,514	162,137	33,047	20,486	45,115
December	1,025,896	277,536	112,228	2,725	162,584	30,503	20,446	44,536
2012								
January	1,003,946	272,552	107,942	2,573	162,037	29,991	20,384	41,467
February	968,241	268,551	103,868	2,429	162,254	29,040	17,367	40,815
March	948,885	267,267	101,791	2,335	163,141	27,008	16,943	40,317
April	940,084	265,094	95,659	2,328	167,107	26,387	16,786	38,852
May	953,834	266,674	96,833	2,668	167,173	26,395	15,564	38,570
June	951,123	264,153	97,718	2,589	163,846	25,696	15,959	37,501
July	928,823	241,360	72,730	2,731	165,899	25,746	16,246	37,448

Notes:

- For commentary on developments in a given month see the relevant Money and Banking Statistics information release at: [Credit, Money and Banking Statistics: Publications and Releases](#)
- For a full set of explanatory notes see: [Money and Banking Statistics Explanatory Notes](#)
- Data in Money and Banking Statistics is collected with reference to business written out of the within-the-State offices of the entire population of credit institutions in the Republic of Ireland. The most up to date list of these institutions is available on the Central Bank website here: [Credit Institutions resident in the Republic of Ireland](#)
- Credit Unions entered the reporting population for Money and Banking Statistics in January 2009.
- Prior to December 2010, the outstanding amount of loans is reported on a net of impairment provisions basis. As of December 2010, the outstanding amount of loans is reported on a nominal basis, i.e. gross of impairment provisions, which, all else being equal, would lead to an increase in the reported outstanding amount of loans in that month.
- In December 2010 the outstanding amount of loans, deposits and other asset and liability instruments across a number of categories has been reduced following the exit of a credit institution from the Irish market.

Table A.4 – continued

Loans to non-residents		Holdings of securities issued by non-residents		Central bank balances		Remaining assets		
Euro area	Rest of the world	Euro area	Rest of the world	Resident	Non-resident	Resident	Non-resident	
24	107	131	145	28	29	30	31	
								Outstanding amounts – € million
								2011
106,389	190,622	73,284	84,022	8,784	–	36,098	27,770	July
102,566	192,689	71,565	81,344	11,138	–	35,970	29,434	August
110,408	203,536	70,790	80,829	7,586	–	35,774	33,281	September
113,953	190,729	69,107	78,657	8,024	–	35,936	31,640	October
111,347	192,918	68,832	76,391	6,659	–	26,445	41,412	November
114,759	190,513	69,336	78,010	6,765	–	27,517	41,739	December
								2012
108,524	182,769	68,977	76,767	6,191	–	25,718	40,601	January
86,707	180,896	69,747	76,093	5,038	–	22,490	37,600	February
72,209	178,528	70,005	77,728	8,364	–	22,662	34,133	March
73,825	181,066	69,796	75,182	7,798	–	18,559	34,470	April
74,360	184,466	70,315	76,982	7,839	–	21,144	39,309	May
82,292	182,696	69,976	74,359	8,037	–	21,625	35,560	June
78,686	185,717	70,840	75,236	7,589	–	23,170	36,335	July
Deposits from non-residents		Capital & reserves		Borrowing from the Eurosystem relating to monetary policy operations		Remaining liabilities		
Euro area	Rest of the world	Resident	Non-resident			Resident	Non-resident	
39	40	41	42	43		45	46	
								Outstanding amounts – € million
								2011
133,577	162,342	109,465	21,479	97,593		85,396	33,851	July
136,254	162,074	108,627	20,202	94,838		87,869	34,897	August
141,904	166,440	110,831	19,826	100,355		84,669	39,525	September
141,808	162,228	109,283	19,011	100,940		78,167	37,973	October
143,452	156,460	109,570	18,561	103,925		66,492	48,880	November
141,710	157,376	109,522	17,828	108,407		67,869	50,164	December
								2012
147,917	152,368	107,500	18,745	94,905		70,889	47,227	January
136,263	153,431	107,565	18,805	87,021		65,548	43,835	February
126,195	149,663	110,719	17,536	87,749		65,227	40,260	March
124,066	148,923	111,125	17,556	89,759		60,981	40,555	April
125,423	153,121	112,182	17,174	88,010		64,973	45,748	May
130,596	150,800	116,946	16,901	88,258		63,264	41,049	June
127,260	152,069	116,432	17,223	84,375		67,053	43,610	July

Table A.4.1: Credit Institutions (Domestic Group) – Aggregate Balance Sheet

	Total Assets								
		Loans to Irish residents				Holdings of securities issued by Irish residents			
			Monetary financial institutions	General government	Private sector		Monetary financial institutions	General government	Private sector
	15	16	17	18	19	20	21	22	23
Outstanding amounts – € million									
2011									
July	657,812	360,035	93,533	29,147	237,355	92,394	15,080	10,335	66,980
August	658,492	361,338	96,456	29,245	235,637	92,764	16,188	11,953	64,622
September	659,387	361,216	95,921	29,321	235,974	91,802	16,294	12,649	62,858
October	649,194	343,153	97,328	29,309	216,516	109,923	16,631	12,836	80,455
November	643,321	343,225	97,649	29,292	216,284	110,335	17,627	12,179	80,528
December	634,241	337,119	92,265	29,389	215,465	110,110	16,694	12,927	80,488
2012									
January	623,785	334,224	90,625	29,430	214,169	111,814	17,350	14,242	80,222
February	614,138	331,861	88,806	29,804	213,251	112,150	17,537	14,601	80,013
March	609,553	328,314	85,729	29,443	213,143	111,056	16,979	14,539	79,539
April	602,589	321,843	80,067	28,083	213,693	113,265	17,706	17,487	78,072
May	602,870	321,177	79,869	27,816	213,492	112,805	17,850	17,019	77,937
June	603,712	320,703	80,912	27,805	211,986	110,846	18,195	17,422	75,228
July	579,598	293,899	55,118	27,789	210,992	112,537	18,807	18,392	75,338

	Total Liabilities							
		Deposits from Irish residents				Debt securities issued		
			Monetary financial institutions	General government	Private sector	Irish resident	Euro area	Rest of the world
	32	33	34	35	11	36	37	38
Outstanding amounts – € million								
2011								
July	657,812	248,569	100,145	2,283	146,140	31,741	8,919	16,755
August	658,492	248,636	101,780	2,360	144,496	30,963	8,538	16,634
September	659,387	248,861	103,293	2,740	142,828	30,599	8,444	15,259
October	649,194	250,062	105,653	2,441	141,968	31,510	8,300	15,035
November	643,321	249,971	106,120	2,486	141,366	32,590	8,070	14,458
December	634,241	243,349	99,425	2,455	141,469	30,031	7,949	13,623
2012								
January	623,785	239,534	95,803	2,541	141,190	29,524	7,957	11,466
February	614,138	237,599	93,780	2,405	141,415	28,583	7,851	11,057
March	609,553	236,494	91,766	2,298	142,430	26,547	7,267	10,360
April	602,589	234,438	85,843	2,322	146,273	25,925	7,265	8,861
May	602,870	234,915	86,372	2,645	145,898	25,903	7,268	8,737
June	603,712	231,865	86,937	2,551	142,378	25,211	7,258	8,108
July	579,598	208,914	62,343	2,698	143,872	25,264	7,188	7,905

Notes:

- For commentary on developments in a given month see the relevant Money and Banking Statistics information release at: [Credit, Money and Banking Statistics: Publications and Releases](#)
- For a full set of explanatory notes see: [Money and Banking Statistics Explanatory Notes](#)
- Data in Money and Banking Statistics is collected with reference to business written out of the within-the-State offices of the entire population of credit institutions in the Republic of Ireland. The most up to date list of these institutions is available on the Central Bank website here: [Credit Institutions resident in the Republic of Ireland](#)

Table A.4.1 – continued

Loans to non-residents		Holdings of securities issued by non-residents		Central bank balances		Remaining assets		
Euro area	Rest of the world	Euro area	Rest of the world	Resident	Non-resident	Resident	Non-resident	
24	107	131	145	28	29	30	31	
								Outstanding amounts – € million
								2011
9,130	108,223	11,964	32,417	6,047	–	29,812	7,789	July
8,665	107,970	10,237	31,420	7,940	–	29,956	8,202	August
8,403	113,120	10,020	31,233	5,587	–	29,595	8,410	September
9,011	104,224	9,464	30,204	5,695	–	29,204	8,316	October
8,520	103,597	9,192	26,988	4,908	–	19,081	17,475	November
8,546	101,142	9,207	28,507	4,385	–	18,769	16,456	December
								2012
8,393	93,430	8,956	27,875	4,260	–	19,256	15,577	January
7,909	92,925	8,773	27,456	3,363	–	15,528	14,174	February
7,902	92,387	8,488	29,766	4,588	–	14,366	12,686	March
8,107	93,780	8,347	26,655	5,903	–	12,324	12,364	April
8,187	93,930	8,190	26,827	5,458	–	13,105	13,190	May
7,619	96,448	7,840	26,267	6,351	–	14,810	12,828	June
8,226	94,994	7,772	26,617	6,179	–	16,515	12,859	July
Deposits from non-residents		Capital & reserves		Borrowing from the Eurosystem relating to monetary policy operations		Remaining liabilities		
Euro area	Rest of the world	Resident	Non-resident			Resident	Non-resident	
39	40	41	42	43	45	46		
								Outstanding amounts – € million
								2011
13,277	86,819	89,768	3,640	70,390	79,253	8,682	July	
13,152	87,429	89,106	3,640	70,480	81,064	8,849	August	
13,173	90,183	90,417	3,428	71,130	78,543	9,350	September	
11,199	88,104	89,227	2,910	71,495	71,495	9,856	October	
11,978	82,536	89,405	2,397	73,090	59,178	19,646	November	
12,760	85,129	89,243	1,742	71,986	58,994	19,435	December	
								2012
12,872	80,618	87,354	2,393	71,252	64,071	16,743	January	
12,932	81,604	87,532	2,382	71,289	57,847	15,460	February	
11,873	79,204	90,420	2,201	74,955	56,219	14,013	March	
11,479	76,767	90,936	2,125	76,958	54,334	13,502	April	
11,043	76,641	90,704	2,203	75,444	56,139	13,874	May	
10,913	78,843	94,878	1,932	75,778	55,726	13,199	June	
10,419	78,971	93,769	1,949	71,877	59,222	14,119	July	

4. Credit Unions entered the reporting population for Money and Banking Statistics in January 2009.

5. Prior to December 2010, the outstanding amount of loans is reported on a net of impairment provisions basis. As of December 2010, the outstanding amount of loans is reported on a nominal basis, i.e. gross of impairment provisions, which, all else being equal, would lead to an increase in the reported outstanding amount of loans in that month.

6. In December 2010 the outstanding amount of loans, deposits and other asset and liability instruments across a number of categories has been reduced following the exit of a credit institution from the Irish market.

Table A.14: Credit Advanced to Irish Resident Private-Sector Enterprises

		Outstanding amounts – € million				
		Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
1. Primary Industries		5,250	5,323	5,069	5,114	5,057
1.1 Agriculture		4,420	4,435	4,260	4,290	4,252
1.1.1 Growing of crops, market gardening, horticulture		489	473	482	474	482
1.1.2 Farming of animals		2,860	2,853	2,730	2,761	2,761
1.1.3 Other agricultural activities		1,071	1,110	1,048	1,055	1,009
1.2 Forestry, logging, mining and quarrying		494	566	490	505	497
1.3 Fishing and aquaculture		337	322	320	319	307
2. Manufacturing		4,949	4,947	5,248	5,066	5,244
2.1 Manufacture of food, beverages and tobacco products		2,072	2,094	2,348	2,225	2,432
2.2 Wood, pulp, paper, paper products, printing and reproduction of recorded media		661	646	669	698	670
2.3 Chemicals, rubber/plastic products, other non-metallic mineral products		753	740	713	624	651
2.4 Pharmaceutical products and preparations, medical and dental instruments and supplies		91	92	74	69	64
2.5 Fabricated metal products, except machinery and equipment		114	86	92	96	90
2.6 Computer, electronic and optical products		82	75	93	101	78
2.7 Production, installation and repair of commercial machinery/equipment, not including computers		390	389	432	436	460
2.8 Other manufacturing		787	825	827	818	799
3. Electricity, Gas, Steam and Air Conditioning Supply		751	795	785	773	774
4. Water Supply, Sewerage, Waste Management and Remediation Activities		130	142	143	138	124
5. Construction		3,429	3,266	3,005	2,948	2,891
5.1 Construction of buildings carried out on contract		1,721	1,596	1,470	1,447	1,393
5.2 Civil engineering activities carried out on contract		689	700	689	673	670
5.3 Other construction activities		1,018	969	846	828	828
6. Wholesale/Retail Trade & Repairs		9,169	9,267	9,430	9,274	9,129
6.1 Sale, maintenance/repair of motor vehicles, retail sale of fuel		1,601	1,640	1,761	1,716	1,674
6.2 Wholesale trade and commission trade (except vehicles)		1,636	1,606	1,843	1,777	1,688
6.3 Retail trade (except vehicles), repair of personal/household goods		5,076	5,088	4,898	4,866	4,848
6.4 Other wholesale/retail		856	933	928	914	919
7. Transportation and Storage		1,668	1,495	1,469	1,545	1,580
7.1 Land, water and air transport		993	902	824	907	936
7.2 Postal, courier, warehousing and support activities for transportation		308	304	324	316	323
7.3 Other transportation and storage		367	288	321	323	320
8. Hotels and Restaurants		7,972	7,906	7,720	7,709	7,678
8.1 Hotels		4,343	4,328	4,248	4,321	4,363
8.2 Restaurants		606	589	607	606	599
8.3 Bars		2,659	2,632	2,535	2,449	2,385
8.4 Other accommodation and catering		365	357	331	332	330
9. Information and Communication		608	599	583	567	463
9.1 Publishing of printed material		180	177	174	174	175
9.2 Audio-visual production and publishing, programming and broadcasting activities		47	48	49	49	28
9.3 Telecommunications and information service activities		253	262	248	230	145
9.4 Software publishing, computer programming, consultancy and related activities		127	111	111	113	114
9.5 Other information and communication		1	1	1	1	1

Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Business_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.14 – continued

Transactions – € million					Growth rates – per cent.				
Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
-39	71	-243	34	-58	-1.3	-1.5	-4.1	-3.3	-3.7
-40	19	-158	20	-38	-1.9	-3.1	-4.5	-3.6	-3.6
-2	-14	9	-8	8	..	..	0.2	-3.1	-1.1
-8	-3	-119	33	0	..	..	-4.8	-3.3	-3.1
-31	36	-48	-6	-45	..	..	-5.8	-4.4	-5.9
10	67	-83	15	-8	3.2	18.8	3.1	2.2	-1.5
-9	-15	-2	-1	-12	1.3	-7.4	-9.1	-7.7	-8.8
-125	-54	123	-243	106	-9.8	-5.5	-1.3	-5.7	-1.3
-30	-21	189	-158	154	..	..	-2.0	-0.7	7.6
25	-14	10	29	-28	..	..	3.7	7.8	-0.4
2	-12	-46	-111	22	..	..	-0.6	-22.0	-19.4
-17	0	-20	-4	-6	..	..	-9.8	-37.4	-32.2
-11	-28	6	4	-5	..	..	22.0	-23.7	-20.5
-8	-8	14	9	-24	..	..	16.1	6.2	-11.2
-32	-3	19	-4	22	..	..	-1.4	-4.9	8.2
-55	32	-49	-7	-26	..	..	-6.5	-9.2	-6.0
-176	39	-17	-11	-8	17.7	51.0	-10.3	-17.0	0.5
2	21	1	-5	-15	-8.3	19.3	19.1	14.4	0.7
-21	1	-30	-32	-14	-44.9	-43.1	2.3	-2.5	-2.4
100	81	-26	-1	-11	..	..	17.8	9.0	2.2
-27	-38	-8	-14	-4	..	..	-14.0	-12.1	-9.1
-94	-42	4	-18	0	..	..	-9.4	-13.8	-5.8
-289	58	68	-196	-158	-8.1	-8.3	-3.4	-3.8	-2.4
-44	42	120	-44	-40	-5.9	-0.1	4.8	4.6	4.9
-4	-62	209	-110	-93	-11.3	-14.0	2.8	2.0	-3.1
-182	18	-246	-32	-16	-4.7	-6.3	-8.2	-8.4	-5.4
-59	61	-16	-10	-10	-21.9	-19.3	-3.1	-2.3	3.0
33	-173	-57	68	33	-1.1	-3.4	-4.1	-8.0	-7.9
0	-90	-73	75	28	..	..	-8.7	-8.8	-6.0
1	-4	14	-8	6	..	..	7.0	1.2	3.0
32	-79	1	1	-2	..	..	-1.2	-13.5	-21.5
-62	-62	-35	-5	-45	-5.3	-4.1	-2.0	-2.0	-1.9
-33	-19	2	75	19	-9.6	-5.8	-1.0	0.6	1.8
-10	-16	-13	-6	-5	0.7	-2.6	-6.3	-7.3	-6.6
-18	-18	-24	-76	-59	2.1	0.0	-2.7	-5.2	-6.9
-1	-8	0	2	0	-9.5	-13.5	-2.6	-1.8	-1.5
-18	-11	-11	-17	-103	16.7	16.2	-6.9	-9.0	-23.4
4	-4	-3	0	1	..	..	-14.8	-1.7	-3.3
-4	0	7	0	-21	..	..	0.0	6.9	-33.7
-3	8	-16	-17	-84	..	..	-4.8	-10.8	-42.6
-15	-15	0	1	2	..	..	-1.2	-20.6	-10.0
0	0	0	0	0	..	..	-3.8	-1.9	-2.3

Table A.14 – continued

Outstanding amounts – € million					
	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
10. Financial Intermediation (Excl. Monetary Financial Institutions)	112,985	107,739	124,188	122,387	117,397
10.1 Financial leasing	1,711	1,639	1,536	1,496	1,485
10.2 Non-bank credit grantors, excluding credit unions	17,942	17,983	16,196	15,787	15,587
10.3 Investment funds, excluding financial vehicle corporations and money market funds	529	461	520	544	592
10.4 Financial vehicle corporations (FVCs)	72,018	69,389	87,458	86,440	82,635
10.5 Life insurance	4,272	2,781	2,778	2,701	1,368
10.6 Pension funding	91	78	69	69	69
10.7 Non-life insurance	141	169	167	231	240
10.8 Security broker/fund management	3,428	3,159	2,850	367	363
10.9 Other financial intermediation/Unallocated	12,854	12,079	12,615	14,751	15,058
11. Real Estate, Land and Development Activities	55,397	55,570	54,907	54,462	54,103
11.1 Property investment/development of residential real estate	16,298	16,288	18,221	18,296	18,622
11.2 Property investment/development of commercial real estate	17,258	17,122	14,246	14,187	14,532
11.3 Property investment/development of mixed real estate	17,528	17,826	18,276	17,928	16,938
11.4 Investment in unzoned land	1,005	1,004	894	863	849
11.5 Other real estate activities	3,308	3,330	3,269	3,187	3,161
12. Business and Administrative Services	5,055	5,014	5,138	5,020	4,692
12.1 Legal, accounting and management consultant activities	1,272	1,229	1,314	1,294	1,197
12.2 Architectural and engineering activities, technical testing and analysis	178	185	173	178	176
12.3 Scientific research and development	32	30	29	33	29
12.4 Rental and leasing activities, services to buildings and landscape activities	106	104	92	90	86
12.5 Employment, office administration and business support activities	263	280	268	268	249
12.6 Other business and administrative services	3,203	3,186	3,262	3,157	2,955
13. Other Community, Social and Personal Services	2,248	2,207	2,160	2,124	2,109
13.1 Recreational, cultural and sporting activities	912	908	895	869	865
13.2 Membership organisations (business, employers, professional, trade unions, religious, political)	311	306	304	300	296
13.3 Other service activities	1,025	994	960	955	948
14. Education	640	589	565	495	500
15. Human Health and Social Work	2,038	2,006	1,999	1,937	1,895
15.1 Hospitals and medical practice activities	1,355	1,347	1,336	1,277	1,251
15.2 Residential care activities	318	313	312	313	310
15.3 Other health and social work	365	346	351	347	333
16. Extra-Territorial Organisations and Bodies	0	0	0	0	0
17. Total	212,288	206,864	222,409	219,558	213,634
17.1 Total ex Financial Intermediation	99,304	99,126	98,221	97,171	96,238
17.2 Total ex Financial Intermediation and Property Related Sectors	40,479	40,290	40,309	39,761	39,244

Table A.14 – continued

Transactions – € million					Growth rates – per cent.				
Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
-2,504	-4,739	-2,926	-1,177	-5,463	14.3	6.8	-10.1	-9.8	-11.8
39	-85	-106	-38	-15	..	..	2.7	-11.3	-14.2
-859	-237	-1,780	-364	-371	..	..	-28.9	-19.9	-15.1
-296	-75	54	26	43	..	..	22.3	-35.4	8.6
649	-2,982	-499	-642	-3,900	..	..	-4.7	-4.7	-9.8
-215	-153	-13	-73	-1,353	..	..	-7.9	-11.0	-53.4
17	-6	8	0	-1	..	..	13.2	26.9	2.0
0	24	-6	67	2	..	..	-27.7	58.9	59.8
-767	-406	-400	-17	-6	..	..	-39.4	-37.3	-24.7
-1,073	-820	-184	-135	138	..	..	-11.6	-15.8	-7.9
413	329	-581	-182	-599	0.4	1.4	0.5	0.0	-1.9
407	127	-358	185	-76	..	..	-1.2	2.1	-0.8
44	-91	-49	-384	-101	..	..	-0.5	-3.2	-4.2
-16	280	-72	30	-372	..	..	4.0	1.3	-0.8
5	-1	-54	-27	-13	..	..	-3.3	-7.8	-9.7
-27	15	-49	14	-37	..	..	0.0	-1.4	-1.7
-61	-91	-276	-19	-232	3.9	-3.0	-14.3	-8.7	-11.8
-43	-45	10	-9	-98	..	..	-22.0	-6.6	-10.8
29	7	-12	6	-3	..	..	6.7	19.1	-1.6
3	-3	0	3	-4	..	..	1.2	12.1	-12.0
-30	-2	-12	0	-4	..	..	-35.7	-32.3	-16.9
-27	-11	-11	0	-21	..	..	4.5	-16.8	-15.3
7	-37	-249	-18	-103	..	..	-12.2	-9.2	-12.4
-39	-33	-35	-33	-16	-68.8	-68.8	-45.6	-6.1	-5.2
-29	-3	-1	-24	-4	..	..	-53.3	-6.2	-3.6
-6	-6	-8	-4	-5	..	..	-25.8	-7.3	-7.1
-3	-24	-26	-5	-8	..	..	-42.8	-5.7	-6.2
-34	-50	-32	-70	6	-35.1	-36.1	-22.8	-27.6	-22.8
4	-11	10	-61	-40	-5.7	-7.5	0.4	-2.9	-5.1
-7	-11	15	-58	-29	..	..	-1.1	-4.6	-6.3
13	-4	-15	1	1	..	..	-22.2	-1.7	-5.4
-3	4	11	-4	-12	..	..	42.0	2.2	-0.6
-1	0	0	0	0	..	..	..	..	..
-2,916	-4,704	-4,042	-1,950	-6,605	3.1	0.2	-6.6	-6.3	-7.8
-412	34	-1,116	-773	-1,143	-5.3	-4.5	-2.6	-2.3	-3.0
-804	-296	-505	-558	-530	-9.4	-9.1	-7.1	-5.2	-4.6

Table A.16: Deposits from Irish Resident Private-Sector Enterprises

	Outstanding amounts – € million				
	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
1. Primary Industries	2,727	2,760	2,986	2,873	2,794
2. Manufacturing	4,114	4,173	4,413	3,827	3,891
3. Electricity, Gas, Steam and Air Conditioning Supply	518	517	524	495	487
4. Water Supply, Sewerage, Waste Management and Remediation Activities	57	60	49	47	53
5. Construction	2,017	1,925	1,965	1,835	1,747
6. Wholesale/Retail Trade & Repairs	4,336	4,313	4,348	3,603	3,765
7. Transportation and Storage	2,557	2,665	2,397	2,461	2,480
8. Hotels and Restaurants	658	668	615	568	632
9. Information and Communication	960	974	1,106	1,039	1,001
10. Financial Intermediation (Excl. Monetary Financial Institutions)	45,007	40,935	40,301	41,224	41,521
11. Real Estate, Land and Development Activities	4,048	3,993	3,782	3,590	3,676
12. Business and Administrative Services	6,919	7,143	7,035	7,481	7,683
13. Other Community, Social and Personal Services	4,374	4,401	4,168	4,239	4,345
14. Education	1,727	1,768	1,714	1,832	1,763
15. Human Health and Social Work	1,125	1,168	1,024	1,113	1,125
16. Extra-Territorial Organisations and Bodies	0	3	0	0	0
17. Total	81,145	77,467	76,426	76,227	76,964

Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Business_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.16 – continued

Transactions – € million					Growth rates – per cent.				
Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12
-23	24	227	-61	-88	7.5	8.7	-1.3	6.0	3.7
-455	12	308	-567	19	-23.9	-10.8	-4.3	-15.5	-5.7
-47	-7	14	-27	-10	-33.7	-23.3	-30.7	-11.9	-5.9
0	2	-12	-1	6	-68.4	-70.4	7.4	-18.8	-8.5
115	-100	57	-130	-89	-22.2	-21.4	-13.2	-3.1	-13.0
218	-10	344	-687	147	-4.5	1.9	5.7	-4.5	-5.6
273	82	-280	75	-10	-15.6	-11.9	-15.7	6.6	-5.1
23	18	-53	-46	63	-10.6	-18.8	-6.3	-9.4	-2.9
-72	5	141	-65	-46	-25.7	-25.4	0.2	0.8	3.5
-1,196	-4,291	-406	748	387	-20.4	-25.4	-17.1	-11.6	-7.9
-736	-65	-42	-190	82	-9.8	-8.6	-13.9	-21.9	-5.4
-253	153	-141	473	126	-9.0	-5.9	4.9	3.2	8.7
67	19	-236	16	99	-7.2	-8.5	-8.9	-3.1	-2.4
-202	42	-50	118	-70	2.9	1.5	-6.6	-4.8	2.3
38	38	-109	-3	8	-41.7	-29.5	-4.6	-3.3	-5.9
0	3	-3	0	0	..	..	..	..	..
-2,250	-4,075	-241	-347	623	-16.8	-17.9	-11.7	-8.6	-5.0

Table A.18: Credit Advanced to and Deposits from Irish Private Households

Total Lending										
Lending for house purchase										
			Floating rate				Fixed rate			
			Standard variable	Tracker	Up to 1 year fixed		Over 1 and up to 3 years	Over 3 and up to 5 years	Over 5 years	

Outstanding amounts – € million**2011**

June	119,027	98,335	84,694	30,819	52,633	1,242	13,641	6,772	5,310	1,560
September	117,872	97,964	85,002	31,764	52,026	1,212	12,963	6,498	4,991	1,473
December	99,955	80,396	69,117	28,154	39,599	1,363	11,279	5,995	4,060	1,223

2012

March	98,713	79,874	69,496	28,810	39,403	1,284	10,377	5,411	3,783	1,184
June	97,945	80,012	70,969	30,522	39,135	1,311	9,043	4,503	3,384	1,156

Transactions – € million**2011**

June	-1,192	-603	-377	-69	-299	-9	-226	6	-199	-33
September	-1,489	-660	19	686	-607	-60	-679	-274	-318	-87
December	-916	-503	-177	1,142	-1,445	127	-326	-202	-203	79

2012

March	-1,143	-500	402	657	-175	-80	-902	-586	-278	-39
June	-728	-335	982	1,041	-52	-8	-1,317	-864	-425	-27

Growth rates – per cent.**2011**

June	-1.3	-2.2	..	..	..	..	..	..	..	..
September	-1.5	-2.4	..	..	..	..	..	..	..	..
December	-3.1	-2.4	-2.5	1.7	-5.1	-1.5	-1.6	2.4	-7.2	1.2

2012

March	-4.1	-2.4	-0.1	8.1	-4.9	-1.7	-16.2	-16.0	-19.0	-5.7
June	-3.9	-2.2	1.8	12.3	-4.4	-1.6	-25.6	-29.5	-25.4	-5.9

Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Private_Households_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.18 – continued

Total Lending			Total Deposits	
Other personal				
	Finance for investment	Finance for other purposes		
Outstanding amounts – € million				
2011				
20,692	2,840	17,852	87,005	June
19,908	2,800	17,108	86,523	September
19,559	2,794	16,765	86,155	December
2012				
18,839	2,725	16,114	86,910	March
17,933	2,748	15,186	86,882	June
Transactions – € million				
2011				
-589	9	-598	-509	June
-830	-66	-763	-497	September
-413	-100	-313	-390	December
2012				
-643	-61	-582	826	March
-393	-41	-352	-89	June
Growth rates – per cent.				
2011				
2.9	-3.2	3.5	-5.7	June
3.3	1.1	3.4	-5.0	September
-6.5	-7.6	-6.3	-3.3	December
2012				
-11.6	-7.6	-12.2	-0.7	March
-11.0	-9.3	-11.3	-0.2	June

Table A.19.1: All Credit Institutions: International Business: Analysis by Currency and Sector

€ million	Mar-12	Jun-12
Assets		
1. Analysis by currency		
<i>Irish residents in non-euro</i>	30,923	30,820
US Dollar	15,345	15,369
Sterling	13,760	13,487
Other	1,818	1,965
<i>Non-residents in non-euro</i>	216,335	218,584
US Dollar	89,086	89,983
Sterling	102,554	103,860
Other	24,696	24,740
<i>Non-residents in euro</i>	172,843	179,708
2. Analysis by sector		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	4,582	4,738
Non-monetary financial institutions	26,341	26,082
<i>Non-residents in non-euro</i>		
Monetary financial institutions	107,213	112,402
Non-monetary financial institutions	109,122	106,182
<i>Non-residents in euro</i>		
Monetary financial institutions	100,077	108,551
Non-monetary financial institutions	72,766	71,157
3. Total international business	420,102	429,112

Table A.19.1 – continued

€ million	Mar-12	Jun-12
Liabilities		
1. Analysis by currency		
<i>Irish residents in non-euro</i>	21,729	22,910
US Dollar	13,669	14,541
Sterling	5,706	5,722
Other	2,354	2,646
<i>Non-residents in non-euro</i>	161,126	157,820
US Dollar	66,903	65,491
Sterling	69,826	68,140
Other	24,397	24,189
<i>Non-residents in euro</i>	171,992	177,035
2. Analysis by sector		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	8,418	9,541
Non-monetary financial institutions	13,311	13,369
<i>Non-residents in non-euro</i>		
Monetary financial institutions	103,080	98,365
Non-monetary financial institutions	58,045	59,455
<i>Non-residents in euro</i>		
Monetary financial institutions	124,215	132,886
Non-monetary financial institutions	47,777	44,149
3. Total international business	354,847	357,765

Table A.19.2: All Credit Institutions: International Business: Analysis by Geographic Area

	Liabilities			Assets			Net external liabilities ^a
	Euro	Non-euro	Total	Euro	Non-euro	Total	
€ million	Mar-12						
1. EU Countries	164,513	145,051	309,564	162,459	180,882	343,341	- 24,583
MU Countries	108,303	56,564	164,867	122,906	49,099	172,005	2,056
Austria	1,484	109	1,593	1,745	342	2,088	- 495
Belgium	25,490	5,933	31,423	4,213	840	5,053	26,370
Luxembourg	824	1,552	2,376	4,173	1,145	5,319	- 2,943
Finland	27	80	107	789	169	957	- 850
France	21,781	8,307	30,088	15,428	3,498	18,926	11,162
Germany	40,847	5,238	46,085	18,783	2,468	21,250	24,835
Greece	7	15	21	583	80	663	- 642
Ireland	-	21,729	21,729	-	30,923	30,923	-
Italy	9,381	372	9,753	41,381	5,298	46,679	- 36,927
Netherlands	6,815	13,008	19,823	12,122	1,940	14,062	5,761
Portugal	26	6	32	1,584	-	1,584	- 1,553
Spain	1,464	102	1,567	20,428	2,058	22,485	- 20,919
Other MU ^b	158	113	271	1,677	339	2,016	- 1,745
Other EU	56,210	88,487	144,698	39,553	131,783	171,337	- 26,639
Denmark	3,529	495	4,024	4,829	1,321	6,150	- 2,126
Sweden	19	314	333	487	1,053	1,540	- 1,207
United Kingdom	52,410	87,495	139,905	31,489	126,229	157,718	- 17,813
Other EU	253	183	436	2,749	3,180	5,929	- 5,493
2. Other Europe	1,673	3,656	5,329	1,764	8,749	10,513	- 5,184
Switzerland	1,567	3,227	4,795	536	4,732	5,268	- 473
Other Europe	105	429	534	1,228	4,017	5,245	- 4,711
3. Other Industrial Countries	2,661	23,039	25,700	6,363	44,700	51,063	- 25,363
Australia, New Zealand, South Africa	104	51	155	491	1,823	2,314	- 2,159
Canada	60	7,710	7,770	1,013	3,480	4,493	3,278
Japan	93	41	135	109	3,204	3,313	- 3,178
United States	2,404	15,237	17,640	4,750	36,193	40,943	- 23,303
4. Offshore Centres	2,759	8,938	11,697	146	6,215	6,361	5,336
5. Other	387	2,171	2,558	2,111	6,712	8,823	- 6,265
Grand Total	171,992	182,855	354,847	172,843	247,258	420,102	- 56,060

^a Net external liabilities are based on the selected assets and liabilities which are included in this table. A plus sign denotes net external liabilities; a minus sign net external assets.

^b Positions vis-a-vis Slovenia, Cyprus, Malta, Slovakia and Estonia are not statistically significant.

Table A.19.2 – continued

Liabilities			Assets			Net external liabilities ^a
Euro	Non-euro	Total	Euro	Non-euro	Total	
Jun-12						
168,202	144,666	312,868	169,182	185,454	354,636	- 33,858
110,395	59,070	169,465	128,926	52,290	181,215	- 3,840
1,235	96	1,331	1,633	351	1,984	- 653
23,954	5,607	29,560	4,384	1,020	5,404	24,157
833	1,471	2,303	4,197	1,087	5,284	- 2,981
22	-	22	829	174	1,004	- 982
27,132	9,945	37,077	21,053	5,525	26,579	10,498
37,710	5,196	42,906	17,638	2,910	20,548	22,358
7	14	22	128	82	210	- 188
-	22,910	22,910	-	30,820	30,820	-
11,749	395	12,144	42,727	5,258	47,985	- 35,841
6,493	13,291	19,784	12,817	2,635	15,452	4,333
22	9	31	1,539	-	1,539	- 1,508
1,089	53	1,142	20,455	2,058	22,513	- 21,371
149	83	232	1,525	369	1,894	- 1,662
57,807	85,596	143,403	40,256	133,165	173,421	- 30,018
7,052	251	7,304	7,778	1,025	8,803	- 1,499
21	278	300	444	1,205	1,649	- 1,350
50,697	84,995	135,693	29,338	128,088	157,426	- 21,734
36	71	107	2,696	2,846	5,543	- 5,436
1,769	3,900	5,669	1,756	8,809	10,564	- 4,895
1,642	3,470	5,112	545	4,605	5,149	- 37
127	430	557	1,211	4,204	5,415	- 4,858
2,942	23,474	26,416	7,173	42,197	49,370	- 22,954
234	40	274	443	1,733	2,176	- 1,903
65	7,974	8,038	1,188	2,754	3,942	4,096
99	45	144	108	3,434	3,542	- 3,398
2,545	15,415	17,960	5,434	34,277	39,710	- 21,750
3,591	7,158	10,749	149	6,254	6,403	4,345
532	1,531	2,063	1,449	6,689	8,138	- 6,075
177,035	180,730	357,765	179,708	249,404	429,112	- 63,437

Table A.20.1: Money Market Funds – Monthly Aggregate Balance Sheet

Assets								
	Total	Deposits and loan claims	Securities other than shares				Money market fund shares/units	Other assets including shares and other equities
			Issued by Irish residents	Issued by other euro area residents	Issued by non-euro area residents			
					MFIs	Other		
Outstanding Amounts – € million								
2011								
August	354,920	123,189	4,195	57,740	130,828	37,449	940	580
September	367,261	115,334	2,531	64,231	139,125	43,805	889	1,345
October	367,336	120,829	2,912	63,719	133,637	44,150	896	1,193
November	382,485	126,616	2,807	69,487	129,039	52,585	875	1,077
December	287,600	75,266	1,561	51,552	109,527	48,411	-	1,283
2012								
January	295,445	72,873	1,880	53,321	115,305	50,878	-	1,189
February	292,698	70,192	1,442	50,412	120,452	49,194	-	1,005
March	301,311	44,316	2,165	59,434	144,337	50,053	-	1,006
April	305,128	54,027	2,294	61,565	138,185	48,320	-	737
May	317,335	58,151	1,988	66,987	143,088	46,246	-	875
June	309,471	72,273	2,003	59,936	126,602	46,444	-	2,212
July	308,920	68,547	2,693	63,333	124,885	49,082	-	382
Aug	315,040	69,306	2,992	70,535	125,052	46,749	-	407
Liabilities								
	Total	Money market fund shares/units issued			Other Liabilities			
		Issued to Irish residents	Issued to other euro area residents	Issued to non-euro area residents				
Outstanding amounts – € million								
2011								
August	354,920	19,225	54,882	275,716	5,097			
September	367,261	16,498	53,050	292,214	5,500			
October	367,336	16,547	52,992	291,167	6,630			
November	382,485	17,436	53,721	303,948	7,380			
December	287,600	13,317	36,529	235,427	2,327			
2012								
January	295,445	13,345	35,798	242,458	3,844			
February	292,698	14,766	34,366	237,439	6,127			
March	301,311	16,085	38,141	242,199	4,886			
April	305,128	16,517	38,222	246,992	3,396			
May	317,335	16,331	38,464	255,343	7,198			
June	309,471	15,789	36,487	252,693	4,502			
July	308,920	13,995	40,992	252,002	1,931			
Aug	315,040	14,072	42,073	254,344	4,552			

The change in definition of money market funds (MMFs) required by Regulation of the European Central Bank ECB/2001/12 has been implemented in December 2011. This has led to €114 billion of funds previously classified as MMF's being re-categorised as Investment Funds and no longer being included in these statistics.

Table A.20.2: Money Market Funds – Currency Breakdown of Assets

	Assets								
	Total	Loans				Securities other than shares			
						Issued by Irish residents			
		Euro	Sterling	USD	Other	Euro	Sterling	USD	Other
Outstanding Amounts – € million									
2010									
March	322,280	7,825	6,385	20,786	306	1,458	1,980	987	3
June	345,479	8,795	9,923	17,999	373	2,199	1,945	669	20
September	345,662	11,789	9,808	20,853	330	1,861	1,239	798	3
December	357,873	10,774	12,080	24,566	330	1,007	1,674	652	78
2011									
March	345,996	11,651	11,482	20,573	355	1,384	489	486	72
June	349,497	30,731	25,405	52,446	280	2,024	432	438	75
September	365,026	27,219	31,372	56,403	340	1,961	243	326	-
December	286,317	16,415	33,309	25,089	453	1,195	216	148	1
2012									
March	300,305	13,025	14,197	16,807	288	1,722	243	198	3
June	307,259	15,011	35,515	21,412	335	1,426	392	181	3
		Securities other than shares							
		Issued by other euro area residents				Issued by non-euro area residents			
		Euro	Sterling	USD	Other	Euro	Sterling	USD	Other
2010									
March		50,509	19,647	12,775	562	16,166	84,072	97,543	1,275
June		48,317	21,015	14,463	437	17,682	85,703	114,646	1,293
September		49,810	23,858	15,248	449	14,772	85,043	108,590	1,212
December		51,219	24,083	16,142	1,068	15,587	90,212	106,412	1,989
2011									
March		50,068	22,544	18,792	427	14,603	88,462	103,847	761
June		25,952	17,456	15,284	358	21,357	73,769	82,533	959
September		28,504	25,320	9,986	421	27,643	72,570	81,775	941
December		24,407	19,608	7,254	282	15,740	76,407	64,606	1,184
2012									
March		20,873	29,235	8,901	425	21,862	100,374	71,079	1,074
June		21,829	27,895	9,699	513	18,839	86,313	66,759	1,135

The change in definition of money market funds (MMFs) required by Regulation of the European Central Bank ECB/2001/12 has been implemented in December 2011. This has led to €114billion of funds previously classified as MMF's being re-categorised as Investment Funds and no longer being included in these statistics.

Section B

Interest Rates

Table B.1.1: Retail Interest Rates – Deposits, Outstanding Amounts

	Households				Non-financial corporations		
	Overnight	Redeemable at notice	With agreed maturity		Overnight	With agreed maturity	
			Up to 2 years	Over 2 years		Up to 2 years	Over 2 years
Rates (per cent per annum)							
2011							
July	0.66	2.41	3.17	2.03	0.25	2.82	1.25
August	0.66	2.40	3.24	2.01	0.26	2.90	1.16
September	0.65	2.41	3.32	2.04	0.26	2.98	1.15
October	0.66	2.43	3.40	2.09	0.23	3.10	1.21
November	0.65	2.32	3.44	2.28	0.24	3.13	1.33
December	0.62	2.33	3.49	2.35	0.23	3.27	1.29
2012							
January	0.61	2.27	3.57	2.37	0.22	3.22	1.42
February	0.53	2.08	3.60	2.43	0.20	3.21	1.53
March	0.56	1.95	3.61	2.47	0.21	3.14	1.59
April	0.57	1.95	3.68	2.51	0.21	3.06	1.67
May	0.52	1.95	3.66	2.54	0.24	3.06	1.58
June	0.52	1.96	3.64	2.53	0.24	3.05	1.72
July	0.50	1.80	3.60	2.54	0.26	2.99	1.72
Volumes (€ million)							
2011							
July	35,650	13,221	28,081	3,613	15,789	13,233	555
August	35,107	13,210	28,114	3,601	16,374	13,128	545
September	35,141	13,003	28,710	3,601	16,195	13,204	551
October	35,251	12,824	28,989	3,733	16,391	12,994	546
November	34,059	12,482	28,868	3,908	16,572	13,311	535
December	34,353	12,246	29,055	4,021	15,830	12,559	474
2012							
January	33,945	12,097	29,507	4,084	15,133	12,291	503
February	33,625	11,971	29,773	4,190	14,810	12,225	525
March	34,214	11,806	30,094	4,281	14,866	12,070	533
April	33,978	11,745	30,371	4,321	15,165	12,298	533
May	33,759	11,527	30,763	4,422	15,094	12,116	504
June	33,969	11,315	30,820	4,414	15,487	11,893	526
July	33,649	11,151	31,083	4,444	15,872	11,571	523

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category. Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.1.2: Retail Interest Rates – Loans, Outstanding Amounts

Households							
	Overdrafts	Loans for house purchases with original maturity			Consumer loans and other loans with original maturity		
		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years
Rates (per cent per annum)							
2011							
July	13.28	3.76	3.49	3.33	9.24	6.21	4.42
August	13.43	3.70	3.52	3.41	9.21	6.32	4.43
September	13.36	3.75	3.40	3.42	9.24	6.33	4.47
October	13.32	3.73	3.59	3.40	9.27	6.36	4.49
November	13.33	3.68	3.52	3.23	9.25	6.34	4.47
December	13.36	3.60	3.31	3.06	9.30	6.32	4.41
2012							
January	13.36	3.74	3.47	2.98	8.83	6.26	4.34
February	13.52	3.69	3.36	2.98	8.86	6.27	4.24
March	13.41	3.47	3.30	2.98	8.73	6.19	4.12
April	13.50	3.38	3.36	3.00	8.64	6.15	4.17
May	13.47	3.35	3.32	2.98	8.68	6.21	4.14
June	13.52	3.28	3.30	2.98	8.95	6.12	4.11
July	13.48	3.22	3.22	2.86	8.95	6.05	4.00
Volumes (€ million)							
2011							
July	4,319	533	807	96,266	6,731	8,188	10,507
August	4,211	549	769	96,047	6,957	7,844	10,443
September	4,274	550	988	96,015	6,748	7,914	10,421
October	4,538	535	686	79,163	6,663	7,825	10,719
November	4,404	527	666	79,110	6,502	7,853	10,671
December	4,540	470	608	78,888	6,555	7,707	10,582
2012							
January	4,522	474	586	78,701	6,574	7,504	10,574
February	4,436	460	584	78,488	6,525	7,433	10,558
March	4,333	455	573	78,421	6,439	7,235	10,655
April	3,725	455	583	79,564	5,806	7,115	10,701
May	3,698	447	582	79,400	5,843	6,983	10,771
June	3,706	444	578	78,562	5,628	7,018	10,775
July	3,717	437	556	77,733	5,603	6,745	10,844

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category. Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.1.2 – Continued

Non-financial corporations

Overdrafts	Loans with original maturity			
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	
Rates (per cent per annum)				
2011				
5.36	3.99	3.85	3.68	July
5.35	3.98	3.78	3.66	August
5.26	3.96	3.81	3.65	September
5.32	3.95	3.82	3.66	October
5.23	3.92	3.81	3.66	November
5.17	3.85	3.82	3.60	December
2012				
5.06	3.67	3.65	3.51	January
4.95	3.56	3.53	3.42	February
5.58	3.63	3.39	3.30	March
4.92	3.75	3.25	3.26	April
4.66	3.77	3.16	3.23	May
4.99	3.76	3.15	3.19	June
4.77	3.75	3.04	3.09	July
Volumes (€ million)				
2011				
9,768	23,695	25,519	40,618	July
9,746	23,348	25,335	40,820	August
9,886	23,455	25,379	40,809	September
9,811	23,209	24,545	40,811	October
10,205	23,657	24,431	40,826	November
9,907	23,435	24,506	40,801	December
2012				
9,686	23,122	24,297	40,660	January
9,773	22,953	24,530	40,681	February
9,506	23,318	24,303	40,428	March
9,432	23,426	23,627	40,572	April
9,359	23,677	23,255	40,489	May
9,291	23,382	22,913	40,859	June
9,462	23,302	22,554	41,156	July

Table B.2.1: Retail Interest Rates and Volumes – Loans and Deposits, New Business**Loans****Households**

For house purchases			For consumption purposes			For other purposes
Floating rate and up to 1 year fixation	Over 1 year fixation	APRC	Floating rate and up to 1 year fixation	Over 1 year fixation	APRC	

Rates (per cent per annum)**2011**

July	3.36	4.60	3.53	6.36	10.81	7.99	5.13
August	3.43	4.57	3.64	6.78	10.80	8.37	5.27
September	3.50	4.86	3.65	5.38	11.08	6.77	5.94
October	3.30	4.56	3.46	4.95	10.96	6.40	4.89
November	3.12	4.33	3.25	4.86	10.70	6.19	5.55
December	2.98	4.22	3.12	5.04	9.83	5.72	5.32

2012

January	3.11	4.22	3.25	6.36	9.36	7.33	4.38
February	3.09	4.19	3.19	7.94	10.50	9.03	4.59
March	3.13	4.37	3.24	5.13	10.49	6.12	5.26
April	3.05	4.39	3.15	6.57	10.40	7.52	4.69
May	3.04	4.25	3.16	7.36	10.55	8.32	4.53
June	3.00	4.21	3.10	7.12	10.44	7.98	5.03
July	3.00	4.13	3.10	6.81	10.12	7.74	4.59

Volumes (€ million)**2011**

July	1,103	169	-	104	60	-	46
August	1,130	160	-	92	60	-	48
September	1,039	127	-	167	53	-	62
October	772	108	-	158	50	-	85
November	957	114	-	179	52	-	81
December	752	95	-	200	32	-	54

2012

January	656	91	-	116	55	-	43
February	669	66	-	105	65	-	63
March	681	60	-	166	37	-	42
April	794	66	-	105	34	-	46
May	785	78	-	85	36	-	46
June	712	62	-	81	28	-	27
July	772	74	-	91	36	-	43

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category. Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.2.1 – Continued

Loans				Deposits		
Non-financial corporations				Households	Non-financial corporations	
Loans up to €1 million		Loans over €1 million		With agreed maturity	With agreed maturity	
Floating rate and up to 1 year fixation	Over 1 year fixation	Floating rate and up to 1 year fixation	Over 1 year fixation			
						Rates (per cent per annum)
						2011
5.08	6.10	3.44	4.68	2.12	2.07	July
4.97	6.39	3.37	4.17	2.32	1.92	August
4.99	6.04	3.36	3.89	2.46	2.05	September
3.92	6.16	3.17	3.19	2.40	2.20	October
5.29	6.06	3.38	3.03	2.40	2.02	November
4.69	5.99	3.68	3.96	2.55	2.17	December
						2012
4.70	6.05	2.84	4.19	2.47	1.78	January
4.72	6.36	2.72	4.22	2.43	1.89	February
4.33	6.19	3.12	6.80	2.39	1.84	March
4.23	6.47	2.91	4.41	2.42	1.68	April
4.38	6.33	3.14	4.10	2.31	1.59	May
4.51	6.18	2.94	4.58	1.95	1.51	June
4.30	6.26	2.92	3.94	1.69	1.38	July
						Volumes (€ million)
						2011
265	43	883	27	7,145	5,270	July
285	38	679	16	7,691	5,185	August
303	42	857	31	8,765	5,999	September
432	38	1,083	26	7,859	4,878	October
326	43	1,118	11	7,747	4,638	November
341	44	963	19	7,822	4,707	December
						2012
253	38	749	22	7,829	4,964	January
264	44	719	26	7,331	4,397	February
316	53	715	118	7,523	4,731	March
270	45	542	41	7,293	5,019	April
246	52	652	32	7,072	4,646	May
237	43	692	111	5,852	3,982	June
246	45	1106	24	5,879	4,273	July

Table B.3: Official and Selected Interest Rates

Per cent per annum	Eurosystem Official Interest Rates			Interbank Market				Clearing Banks' Prime Rates
	Marginal lending facility	Deposit facility	Main refinancing operations	Eonia (overnight)	1 month Euribor	3 month Euribor	12 month Euribor	Ireland
End-month								
2011								
July	2.25	0.75	1.50	0.97	1.43	1.61	2.18	1.60 - 2.90
August	2.25	0.75	1.50	0.96	1.35	1.54	2.09	1.70 - 2.90
September	2.25	0.75	1.50	1.46	1.36	1.55	2.08	1.65 - 2.90
October	2.25	0.75	1.50	0.94	1.37	1.59	2.12	1.65 - 2.90
November	2.00	0.50	1.25	0.81	1.21	1.47	2.04	1.70 - 2.80
December	1.75	0.25	1.00	0.63	1.02	1.36	1.95	1.63 - 2.70
2012								
January	1.75	0.25	1.00	0.38	0.71	1.13	1.75	1.25 - 2.50
February	1.75	0.25	1.00	0.37	0.56	0.98	1.61	1.10 - 2.30
March	1.75	0.25	1.00	0.39	0.42	0.78	1.42	0.96 - 2.10
April	1.75	0.25	1.00	0.34	0.40	0.71	1.31	0.88 - 2.00
May	1.75	0.25	1.00	0.33	0.39	0.67	1.23	0.88 - 2.00
June	1.75	0.25	1.00	0.38	0.37	0.65	1.21	0.88 - 2.00
July	1.50	0.00	0.75	0.11	0.15	0.39	0.95	0.63 - 1.70

Note: Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area.
Daily data from 30 December 1998 are available from www.euribor.org.

Section C

Other Financial Data

Table C.1: Investment Funds – Aggregate Balance Sheet

		Total Assets						
		Deposits and loan claims			Securities other than shares			
		Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total	
Outstanding amounts – € million								
2010								
March	510,571	4,448	2,484	12,604	5,918	33,115	120,299	
June	553,748	4,836	2,760	18,363	5,619	34,120	144,596	
September	577,972	4,649	1,733	18,011	5,721	36,471	157,039	
December	645,556	4,178	1,771	19,464	5,871	37,934	190,426	
2011								
March	649,414	4,506	2,041	19,858	5,286	39,446	178,724	
June	670,762	4,220	2,075	21,275	5,022	40,433	192,748	
September	661,748	3,661	1,803	23,513	4,538	40,778	210,498	
December	818,648	4,046	4,285	52,827	9,683	53,101	355,764	
2012								
March	885,877	5,377	6,065	52,999	12,628	57,206	314,386	
June	953,172	5,060	2,641	73,523	14,260	67,308	325,367	
Transactions – € million								
2010								
March	25,062	-197	-41	-1,068	1,579	-2,806	6,528	
June	19,678	377	389	4,224	-513	654	11,017	
September	29,006	-131	-968	1,068	144	1,913	16,768	
December	35,137	-435	17	1,290	260	938	29,153	
2011								
March	18,479	414	273	1,146	-497	1,869	-5,796	
June	25,363	-439	42	646	-215	955	13,171	
September	3,255	-1,844	-318	3,377	270	-31	4,950	
December	-9,559	295	-291	586	1,991	2,019	-4,040	
2012								
March	28,862	1,384	525	-3,458	3,516	5,132	17,303	
June	38,009	-307	-3,443	16,830	1,795	9,615	-8,702	
		Total Liabilities						
		Investment fund shares/units						
		Domestic MFIs	Domestic Non-MFI's	Domestic Total	OMUMs' MFI	OMUMs' Non-MFI's	OMUMs' Total	ROW Total
Outstanding amounts – € million								
2010								
March	510,571	8,748	25,348	34,096	39,341	113,990	153,330	296,968
June	553,748	13,147	32,924	46,071	45,232	113,269	158,501	316,021
September	577,972	13,705	29,899	43,603	51,434	112,212	163,646	332,493
December	645,556	17,002	32,558	49,560	62,388	119,466	181,854	374,054
2011								
March	649,414	17,062	28,808	45,870	68,011	114,832	182,843	379,210
June	670,762	18,222	27,242	45,464	78,845	117,875	196,720	381,223
September	661,748	15,933	25,495	41,429	67,990	108,792	176,782	387,747
December ^a	818,648	15,922	27,298	43,220	78,293	134,234	212,527	512,919
2012								
March	885,877	17,486	29,980	47,466	79,645	136,553	216,198	556,112
June	953,172	16,929	33,439	50,368	76,030	150,182	226,211	578,503
Transactions – € million								
2010								
March	25,062	2,047	816	2,863	4,910	-14,212	-9,302	22,477
June	19,678	3,435	5,162	8,597	4,638	-3,859	779	5,400
September	29,006	422	-3,320	-2,898	6,397	-632	5,765	20,150
December	35,137	2,341	826	3,167	7,793	1,201	8,995	21,103
2011								
March	18,479	250	-3,427	-3,177	6,987	-2,330	4,657	13,703
June	25,363	1,279	-1,388	-109	11,430	3,933	15,363	4,859
September	3,255	-2,361	-1,863	-4,224	-8,813	-5,816	-14,629	16,740
December	-9,559	-2,433	-2,059	-4,493	-10,988	-7,460	-18,447	20,591
2012								
March	28,862	711	1,219	1,930	-1,582	-2,712	-4,293	18,559
June	38,009	-846	2,888	2,042	-5,344	10,213	4,869	4,809

Note 1: Investment fund shares/units data has been revised to smooth the year-on-year changes arising from the Fund Annual Survey of Liabilities over four quarters for each survey.

Table C.1 – continued

Shares and other equity			Investment fund shares/units (incl. MMF shares)			Non-financial assets			Other assets
Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total	Total
10,390	35,532	186,836	29,445	4,950	20,395	16,242	524	14,934	12,455
11,109	30,508	192,061	31,628	5,005	23,218	17,286	510	17,185	14,944
9,627	34,523	198,468	31,457	5,472	20,963	17,621	843	13,936	21,439
12,175	38,097	230,145	33,092	6,909	21,556	11	0	135	43,793
14,174	44,708	226,522	32,900	7,322	24,864	10	0	134	48,917
12,243	45,187	230,348	33,417	8,115	25,919	11	0	63	49,684
14,170	33,909	204,114	36,312	8,609	28,655	11	0	65	51,111
15,331	33,917	220,138	39,206	9,083	28,047	11	0	64	55,927
16,481	39,349	242,127	42,018	9,241	28,377	10	0	58	59,552
18,714	35,824	243,717	40,221	11,066	33,911	10	0	58	81,491
850	1,927	3,031	2,211	123	-865	7,011	271	6,451	59
431	-4,190	4,699	693	46	1,226	-1,422	-42	184	1,904
-1,082	1,846	2,812	2,567	437	-918	1,719	307	-2,153	4,677
2,787	2,331	8,215	-165	1,245	-805	-8,346	-532	2,185	-6,693
2,228	5,814	2,220	112	511	3,561	0	0	15	6,608
-2,144	264	8,677	1,985	1,050	889	0	0	-71	551
794	-6,230	-5,891	3,319	1,188	2,356	0	0	-14	1,330
575	-1,137	-5,656	278	-166	-2,212	0	0	-35	-1,765
659	939	2,451	-838	-589	-645	0	0	-5	2,491
662	-163	3,131	-4,098	1,743	4,825	0	0	1	16,120
Loans and deposits received	Other liabilities								
Total	Total								
4,082	22,095								
5,440	27,715								
4,206	34,023								
3,899	36,190								
4,792	36,700								
5,419	41,936								
5,626	50,165								
6,094	43,887								
12,292	53,810								
16,383	81,707								
1,615	7,408								
1,040	3,861								
-993	6,982								
-365	2,238								
1,038	2,258								
566	4,684								
-141	5,509								
428	-7,637								
2,138	10,529								
3,577	22,712								

Note 2: The data contains the following reclassifications: €25,409 million from Non-Financial assets to Other Assets in Q4 2010, former Money Market Funds were reclassified as Investment Funds in November 2011 resulting in additional funds €114,002 million by end-Q4 2011. €15,689 million moved, within asset holdings, from Securities other than shares to Deposits and Loans in Q4 2011 and an additional €4,684 million in Q1 2012, driven by improvements in the recording of repurchase agreements (repos). In Q1 2012, improvements in the recording of reverse repos saw the overall balance sheet increase by €4,140 million, via Securities other than shares on the asset side and Deposits and loans on the liability side. In net terms, Securities other than shares decreased by an additional €689 million in Q1 2012 (the net effect of repo and reverse repo reclassifications in Q1 2012).

Table C.2.1: Securities Issues Statistics: Debt Securities

€ million

Debt securities: All currencies

Short-term securities

	Total	MFIs	OFls	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	100,726	35,235	60,782	0	0	4,709
February	87,498	35,254	48,800	0	0	3,444
March	84,591	34,574	48,125	0	0	1,893
April	86,280	37,242	48,310	0	0	728
May	85,582	36,377	48,489	0	0	716
June	80,722	32,255	48,014	0	0	452
July	78,465	30,837	47,153	0	0	475
August	78,732	28,950	48,473	0	0	1,309
September	77,280	28,777	48,005	0	0	497
October	78,507	28,048	48,597	0	0	1,862
November	75,771	27,342	47,935	0	0	494
December	80,210	26,940	52,920	0	0	349
2012						
January	81,027	28,632	51,760	0	0	635
February	73,488	20,217	52,531	0	0	740
March	74,812	20,720	53,241	0	0	852
April	73,725	20,734	52,039	0	0	952
May	72,121	18,994	52,089	0	0	1,038
June	68,339	18,653	48,569	0	0	1,117
July	65,234	16,118	47,826	0	0	1,289
Transactions						
2011						
January	17,191	16,854	2,497	0	0	-2,160
February	-13,233	19	-11,987	0	0	-1,265
March	-2,907	-681	-675	0	0	-1,551
April	1,689	2,668	186	0	0	-1,164
May	-698	-865	178	0	0	-12
June	-4,860	-4,122	-474	0	0	-264
July	-2,257	-1,418	-861	0	0	23
August	267	-1,887	1,320	0	0	834
September	-1,453	-173	-468	0	0	-812
October	1,227	-729	592	0	0	1,365
November	-2,736	-706	-662	0	0	-1,368
December	4,439	-402	4,985	0	0	-145
2012						
January	817	1,692	-1,160	0	0	286
February	-7,539	-8,415	772	0	0	105
March	1,324	503	709	0	0	112
April	-1,087	15	-1,202	0	0	101
May	-1,604	-1,740	50	0	0	86
June	-3,782	-341	-3,519	0	0	79
July	-3,105	-2,535	-743	0	0	172

Table C.2.1 – continued

Debt securities: All currencies

Long-term securities

Total	MFIs	OFls	IC&PF	NFCs	Govt
983,253	99,327	787,741	2,277	3,734	90,174
976,238	99,508	780,791	2,261	3,596	90,081
960,277	94,511	770,128	2,197	3,549	89,892
952,915	93,242	765,026	2,108	2,867	89,673
953,544	92,760	766,046	2,167	2,906	89,666
949,508	91,083	763,843	2,152	2,719	89,711
953,672	90,892	768,009	2,182	2,816	89,773
941,799	90,407	756,549	2,167	2,806	89,870
944,346	89,300	760,078	2,294	2,990	89,684
937,762	88,370	754,435	2,245	2,939	89,773
941,747	88,896	762,151	2,328	2,993	85,380
948,454	86,035	771,566	2,400	3,044	85,410
938,509	83,110	764,567	2,382	3,032	85,419
931,945	79,955	761,207	2,346	3,008	85,429
939,447	76,399	777,910	2,382	3,012	79,745
939,251	74,291	776,586	2,364	2,774	83,237
959,745	74,484	796,651	2,516	2,859	83,234
951,585	73,453	789,620	2,457	2,825	83,230
966,229	73,468	804,179	2,537	2,832	83,214
218	-1,792	3,872	-1,909	68	-21
-7,010	181	-6,945	-17	-137	-92
-15,940	-4,997	-10,643	-64	-47	-189
-7,333	-1,269	-5,074	-89	-683	-219
610	-482	1,001	59	40	-7
-2,653	-1,677	-819	-15	-188	45
2,776	-192	2,778	30	97	62
-11,868	-484	-11,455	-15	-10	96
2,507	-1,108	3,488	127	184	-185
-6,568	-930	-5,626	-50	-51	89
3,958	526	7,688	84	53	-4,393
6,684	-2,861	9,392	72	51	30
-9,945	-2,924	-6,999	-18	-12	9
-6,564	-3,155	-3,360	-36	-25	11
7,502	-3,557	16,703	36	5	-5,685
-196	-2,108	-1,324	-18	-239	3,492
20,494	193	20,065	152	85	-3
-8,159	-1,031	-7,031	-59	-34	-4
14,644	15	14,559	80	7	-16

Table C.2.1 – continued

€ Million

Debt securities: Euro denominated

Short-term securities

	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	87,986	27,434	56,289	0	0	4,262
February	75,807	28,332	44,366	0	0	3,109
March	72,494	27,445	43,485	0	0	1,563
April	74,443	30,315	43,623	0	0	505
May	74,483	30,263	43,926	0	0	295
June	71,890	28,183	43,412	0	0	295
July	70,393	27,384	42,869	0	0	140
August	70,800	25,738	44,072	0	0	990
September	69,214	25,545	43,429	0	0	240
October	70,803	25,374	43,934	0	0	1,495
November	68,584	24,697	43,701	0	0	185
December	70,672	24,258	46,115	0	0	300
2012						
January	72,579	26,029	45,968	0	0	582
February	63,040	17,576	44,839	0	0	625
March	64,338	17,871	45,737	0	0	729
April	63,514	17,866	44,845	0	0	804
May	61,469	16,061	44,681	0	0	727
June	57,254	15,721	40,832	0	0	701
July	54,168	12,842	40,115	0	0	1,211
Transactions						
2011						
January	17,019	16,236	2,683	0	0	-1,900
February	-12,179	898	-11,923	0	0	-1,154
March	-3,313	-886	-881	0	0	-1,546
April	1,949	2,869	138	0	0	-1,058
May	40	-52	302	0	0	-210
June	-2,593	-2,079	-514	0	0	0
July	-1,497	-799	-543	0	0	-155
August	407	-1,647	1,204	0	0	850
September	-1,586	-193	-643	0	0	-750
October	1,588	-171	504	0	0	1,255
November	-2,219	-676	-232	0	0	-1,310
December	2,089	-440	2,413	0	0	115
2012						
January	1,907	1,771	-146	0	0	282
February	-9,540	-8,453	-1,129	0	0	43
March	1,298	295	899	0	0	104
April	-823	-6	-892	0	0	75
May	-2,045	-1,805	-163	0	0	-77
June	-4,216	-340	-3,850	0	0	-26
July	-3,086	-2,879	-717	0	0	510

Table C.2.1 – continued

Debt securities: Euro denominated

Long-term securities

Total	MFIs	OFls	IC&PF	NFCs	Govt
714,445	75,906	546,369	0	2,086	90,085
709,418	76,973	540,492	0	1,960	89,993
701,465	73,083	536,615	0	1,960	89,807
706,744	72,596	543,203	0	1,356	89,590
703,411	72,055	540,420	0	1,356	89,581
701,756	71,341	539,533	0	1,256	89,626
698,103	71,065	536,098	0	1,256	89,684
690,471	70,889	528,547	0	1,256	89,779
682,904	69,173	522,785	0	1,356	89,589
680,892	69,299	520,556	0	1,356	89,681
676,333	69,850	519,843	0	1,356	85,284
673,874	66,617	520,590	0	1,356	85,310
667,499	64,113	516,712	0	1,356	85,318
665,228	62,700	515,835	0	1,356	85,337
654,618	59,838	513,773	0	1,356	79,651
653,281	57,471	511,311	0	1,356	83,142
657,384	57,732	515,165	0	1,356	83,131
654,956	57,525	512,943	0	1,356	83,131
652,444	57,339	510,681	0	1,314	83,110
-9,046	-642	-8,326	-160	100	-18
-5,027	1,068	-5,877	0	-126	-92
-7,953	-3,890	-3,878	0	0	-186
5,280	-488	6,588	0	-603	-217
-3,333	-541	-2,783	0	0	-9
-1,656	-714	-887	0	-100	45
-3,653	-276	-3,434	0	0	58
-7,632	-176	-7,551	0	0	95
-7,567	-1,715	-5,762	0	100	-190
-2,012	126	-2,230	0	0	92
-4,559	550	-712	0	0	-4,397
-2,459	-3,232	747	0	0	26
-6,374	-2,505	-3,878	0	0	9
-2,271	-1,413	-877	0	0	19
-10,610	-2,862	-2,062	0	0	-5,686
-1,337	-2,367	-2,462	0	0	3,492
4,103	260	3,854	0	0	-11
-2,429	-207	-2,222	0	0	0
-2,511	-186	-2,262	0	-42	-22

Table C.2.2: Securities Issues Statistics: Equities

€ million

Equity Securities**Quoted securities**

	Total	MFIs	OFls	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	157,241	9,118	10,832	220	137,072	..
February	159,813	9,753	11,047	253	138,760	..
March	158,153	8,567	11,088	241	138,257	..
April	163,489	11,370	10,704	241	141,174	..
May	163,210	10,020	10,410	243	142,538	..
June	160,292	9,410	10,636	238	140,008	..
July	155,654	10,895	10,420	229	134,110	..
August	150,602	14,860	9,983	223	125,536	..
September	147,772	14,512	10,497	216	122,546	..
October	160,882	15,328	11,303	215	134,036	..
November	162,047	14,997	11,561	218	135,271	..
December	163,102	14,667	11,889	216	136,330	..
2012						
January	175,567	15,631	12,174	233	147,529	..
February	182,217	16,269	12,087	285	153,575	..
March	186,563	15,637	11,777	287	158,863	..
April	189,824	15,577	12,159	290	161,799	..
May	185,040	14,884	12,336	270	157,551	..
June	184,319	15,251	12,258	268	156,541	..
July	194,543	15,282	12,597	263	166,400	..
Transactions						
2011						
January	108	190	0	0	-81	..
February	-97	0	0	0	-97	..
March	-159	0	-225	0	66	..
April	2,508	2,394	1	0	114	..
May	-535	0	0	0	-535	..
June	140	0	5	0	135	..
July	2,092	2,024	0	0	68	..
August	5,501	5,534	-158	0	125	..
September	2,211	0	2,284	0	-73	..
October	1,561	0	0	0	1,561	..
November	-371	0	343	0	-714	..
December	-108	0	58	0	-166	..
2012						
January	-63	0	-77	0	14	..
February	-280	0	-73	0	-207	..
March	16	0	-82	0	98	..
April	-17	0	0	0	-17	..
May	648	0	216	0	432	..
June	358	279	0	0	79	..
July	913	0	179	0	734	..

Table C.3: Assets and Liabilities of Irish Financial Vehicle Corporations**Outstanding Amounts - € billions**

	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2	2011Q3	2011Q4	2012Q1	2012Q2
Assets									
Deposits and loan claims	74.1	71.9	87.3	80.0	83.3	77.8	76.5	74.2	72.7
<i>To euro area FVCs</i>	15.0	17.6	35.0	35.6	36.2	38.4	38.4	38.6	35.9
Securitised loans	220.5	225.9	266.2	259.2	254.3	244.2	230.3	226.4	226.4
Originated by euro area MFIs	143.6	151.9	194.6	189.6	187.3	158.7	146.0	144.7	143.6
By borrowing sector									
Domestic households	66.0	70.8	74.8	69.6	69.4	72.8	72.6	73.1	72.4
OMUM households	11.0	10.2	11.7	10.5	9.9	8.5	3.7	3.2	2.7
Domestic non-financial corporations	16.0	20.8	44.5	54.9	41.9	40.8	43.1	41.5	42.0
OMUM non-financial corporations	29.6	29.4	31.3	28.4	34.1	13.1	6.7	6.8	6.3
Euro area residents (*)	1.6	1.6	1.0	0.9	4.7	4.3	0.5	0.5	0.4
Non euro area residents	19.4	19.1	31.3	25.4	27.3	19.2	19.4	19.6	19.9
Originated by euro area residents (*)	15.9	16.0	15.8	12.1	12.1	14.7	14.6	14.5	14.4
Originated by euro area non-financial corporations	18.4	18.7	17.3	16.9	16.5	17.8	18.0	17.9	17.7
Originated by non-euro area residents	42.5	39.3	38.4	40.5	38.5	53.0	51.7	49.4	50.7
Securities other than shares	168.7	157.6	153.0	149.5	138.5	135.3	132.4	121.0	120.6
<i>Issued by euro area FVCs</i>	24.4	22.1	20.6	19.0	18.5	17.0	15.7	15.0	14.6
Other securitised assets	13.4	13.3	12.0	11.7	12.0	11.5	12.4	11.5	9.6
<i>Originated by euro area general government</i>	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1
<i>Originated by euro area non-financial corporations</i>	3.6	3.6	3.3	3.1	3.1	3.0	3.2	2.6	2.2
Shares and other equity	34.7	34.0	34.9	30.1	29.0	27.9	26.1	25.3	19.4
<i>Issued by euro area FVCs</i>	31.1	30.6	31.4	27.1	26.2	24.9	23.3	22.7	17.0
Other assets	16.4	18.4	22.7	13.3	16.5	19.9	21.4	22.2	20.5
Liabilities									
Loans and deposits received	45.1	48.9	65.4	63.2	63.0	62.6	64.1	63.3	65.1
<i>From euro area FVCs</i>	19.2	21.5	39.0	39.4	38.8	38.9	39.0	38.9	36.7
Debt securities issued	450.7	436.9	444.2	416.9	408.5	386.6	369.1	350.0	333.7
<i>Up to 1 year original maturity</i>	25.2	25.0	24.5	24.8	25.2	23.6	24.7	19.6	16.6
<i>1 to 2 years original maturity</i>	8.3	5.3	7.0	5.5	5.1	5.4	6.0	5.6	4.3
<i>Over 2 years original maturity</i>	417.2	406.7	412.7	386.6	378.3	357.7	338.4	324.8	312.8
Capital and reserves	2.2	1.8	1.8	0.0	0.1	0.2	-0.3	-0.2	0.0
Other liabilities	29.8	33.5	64.7	63.6	62.2	67.0	66.3	67.6	70.4
Total	527.8	521.1	576.1	543.8	533.7	516.4	499.1	480.7	469.2

(*) Euro area residents include general government, other financial intermediaries, insurance corporations and pension funds.

Table C.3: Assets and liabilities of Irish Financial Vehicle Corporations**Transactions - € billions**

	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2	2011Q3	2011Q4	2012Q1	2012Q2
Assets									
Deposits and loan claims	2.6	-1.8	15.4	-6.6	3.4	-5.9	-1.3	-2.0	-1.6
<i>To euro area FVCs</i>	7.9	2.7	17.5	0.4	0.9	1.9	-	0.1	-2.8
Securitised loans	6.0	-0.9	13.6	-7.1	-3.9	-12.8	-16.2	-3.4	-1.4
Originated by euro area MFIs	5.2	3.1	15.4	-6.2	-1.1	-4.6	-13.5	-0.6	-1.1
By borrowing sector									
Domestic households	0.6	3.3	3.5	-3.5	-2.8	-0.7	0.8	-0.5	-0.8
OMUM households	-0.8	-0.8	1.2	-1.2	-0.6	-1.0	-4.9	-0.5	-0.5
Domestic non-financial corporations	4.0	0.4	9.1	-0.4	-1.9	-0.5	1.3	-0.2	0.1
OMUM non-financial corporations	-0.4	0.6	-0.5	-0.6	4.0	-0.6	-6.5	-	0.1
Euro area residents (*)	0.2	-	-0.7	-0.1	3.7	-	-3.9	0.2	-0.1
Non euro area residents	1.7	-0.3	2.8	-0.4	-3.5	-1.9	-0.3	0.4	0.3
Originated by euro area residents (*)	-0.1	0.1	-0.1	-3.6	-	-0.1	-0.1	-0.2	-
Originated by euro area non-financial corporations	-0.2	0.3	-1.3	-0.1	-0.4	0.1	0.3	-0.1	-0.4
Originated by non-euro area residents	1.0	-4.4	-0.4	2.9	-2.4	-8.2	-3.0	-2.5	0.1
Securities other than shares	-	-9.4	-3.0	-2.8	-10.0	-3.4	-3.3	-11.5	-1.6
<i>Issued by euro area FVCs</i>	3.0	-2.0	-2.0	-0.7	-0.2	-0.4	-1.0	-0.6	-0.8
Other securitised assets	1.0	-	-1.2	0.1	0.3	-0.6	1.0	-1.2	-0.9
<i>Originated by euro area general government</i>	-0.1	-	-	-	-	-	-	-	-0.1
<i>Originated by euro area non-financial corporations</i>	0.7	0.1	-0.3	-	-	-0.1	0.2	-0.7	-0.1
Shares and other equity	-1.9	-0.7	-0.1	-4.7	-0.9	-1.2	-1.7	-0.7	-5.9
<i>Issued by euro area FVCs</i>	-2.2	-0.5	-0.4	-4.2	-0.9	-1.3	-1.6	-0.7	-5.7
Other assets	-2.7	1.8	3.6	-12.2	-2.8	-6.9	-1.1	-2.0	-4.2
Liabilities									
Loans and deposits received	7.9	2.6	16.6	-1.7	0.2	-0.8	1.4	-0.3	1.6
<i>From euro area FVCs</i>	8.8	2.4	17.6	0.2	-0.2	0.2	-0.1	-	-2.4
Debt securities issued	-1.7	-11.1	10.5	-26.0	-11.6	-21.8	-17.7	-18.8	-17.6
<i>Up to 1 year original maturity</i>	-3.7	-	0.2	0.1	-3.7	-2.8	1.0	-5.6	-3.0
<i>1 to 2 years original maturity</i>	-1.2	-3.0	1.9	-1.5	-0.4	0.4	0.7	-0.6	-1.1
<i>Over 2 years original maturity</i>	3.2	-8.2	8.4	-24.6	-7.5	-19.4	-19.4	-12.6	-13.5
Capital and reserves	-0.4	0.2	-1.5	-1.6	0.6	-0.9	-0.8	-0.1	0.1
Other liabilities	-0.7	-2.6	2.5	-4.1	-3.2	-7.3	-5.6	-1.4	0.1
Total	5.1	-11.0	28.2	-33.3	-14.0	-30.8	-22.7	-20.7	-15.7

(*) Euro area residents include general government, other financial intermediaries, insurance corporations and pension funds.

Section D

Quarterly Financial Accounts

Table D.1: Financial Balance Sheet By Sector, Q1 2012

	Total Assets	Total Liabilities	Net Financial Wealth	Total Assets Transactions	Total Liabilities Transactions	Net Financial Borrowing/ Lending
€ million						
Non-financial corporations	655,348	897,630	-242,282	11,801	11,038	763
Financial corporations	3,521,983	3,573,912	-51,928	-42,742	-40,318	-2,424
Monetary financial institutions	1,391,862	1,397,768	-5,906	-73,282	-83,028	9,746
Other financial intermediaries and financial auxiliaries	1,844,043	1,885,688	-41,645	25,630	37,463	-11,833
Insurance corporations and pension funds	286,078	290,455	-4,377	4,910	5,248	-337
General government	69,526	186,677	-117,152	1,763	5,792	-4,029
Households and non-profit institutions serving households	308,072	188,473	119,599	1,848	-2,091	3,939
Rest of the world	3,236,685	2,944,081	292,605	1,540	-214	1,754

Table D.1.1: Financial Balance Sheet By Sector, Q1 2012

	Total Assets								
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	655,348	0	41,735	19,261	22,475	3,966	439	2,281	1,247
Financial corporations	3,521,983	841	565,800	75,291	490,509	1,261,791	364,765	845,317	51,709
Monetary financial institutions	1,391,862	841	455,766	49,502	406,264	551,495	231,791	288,749	30,955
Other financial intermediaries and financial auxiliaries	1,844,043	0	84,184	22,073	62,111	634,096	128,352	487,486	18,257
Insurance corporations and pension funds	286,078	0	25,849	3,715	22,134	76,200	4,622	69,082	2,497
General government	69,526	0	19,774	0	19,774	8,045	3	7,414	628
Households and non-profit institutions serving households	308,072	0	123,232	54,964	68,268	488	0	188	300
Rest of the world	3,236,685	0	406,303	61,981	344,322	598,515	20,838	530,223	47,455

	Total Liabilities								
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	897,630	0	0	0	0	10,537	0	9,398	1,139
Financial corporations	3,573,912	0	826,941	134,107	692,834	653,723	45,511	555,620	52,591
Monetary financial institutions	1,397,768	0	826,941	134,107	692,834	129,288	11,907	80,167	37,214
Other financial intermediaries and financial auxiliaries	1,885,688	0	0	0	0	522,052	33,604	473,071	15,376
Insurance corporations and pension funds	290,455	0	0	0	0	2,382	0	2,382	0
General government	186,677	0	15,796	702	15,094	82,234	3,595	77,845	794
Households and non-profit institutions serving households	188,473	0	0	0	0	0	0	0	0
Rest of the world	2,944,081	0	314,108	76,687	237,420	1,126,312	336,938	742,559	46,814

Table D.1.1 – continued

Total Assets

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
206,713	90,400	116,313	278,668	2,312	272,817	3,539	2,774	0	0	2,774	121,491	Non-financial corporations
973,837	195,940	777,897	623,283	n.a.	n.a.	162,532	30,002	0	0	30,002	66,430	Financial corporations
353,852	64,198	289,654	18,896	10,000	8,657	239	0	0	0	0	11,012	Monetary financial institutions
615,254	129,804	485,450	472,123	346,778	34,297	91,049	0	0	0	0	38,386	Other financial intermediaries and financial auxiliaries
4,731	1,939	2,792	132,264	61,020	0	71,244	30,002	0	0	30,002	17,032	Insurance corporations and pension funds
9,387	1,119	8,268	24,135	8,261	14,324	1,550	0	0	0	0	8,185	General government
0	0	0	47,702	9,420	38,282	0	128,690	65,599	61,242	1,849	7,960	Households and non-profit institutions serving households
511,757	216,985	294,772	1,518,804	110,492	355,648	1,052,665	108,084	79,651	0	28,433	93,222	Rest of the world

Total Liabilities

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
341,620	76,847	264,773	429,971	160,943	269,028	0	0	0	0	0	115,503	Non-financial corporations
411,337	257,380	153,957	1,361,328	20,701	215,359	1,125,269	244,080	145,250	61,242	37,589	76,502	Financial corporations
0	0	0	424,425	8,637	119,272	296,516	0	0	0	0	17,114	Monetary financial institutions
405,212	256,137	149,075	912,762	11,777	72,232	828,753	0	0	0	0	45,662	Other financial intermediaries and financial auxiliaries
6,125	1,244	4,882	24,141	287	23,854	0	244,080	145,250	61,242	37,589	13,726	Insurance corporations and pension funds
79,919	542	79,377	1,789	0	1,789	0	0	0	0	0	6,940	General government
180,383	7,527	172,856	0	0	0	0	0	0	0	0	8,090	Households and non-profit institutions serving households
688,434	162,148	526,286	699,505	366,639	237,849	95,017	25,469	0	0	25,469	90,253	Rest of the world

n.a. not available.

Table D.1.2: Financial Transactions By Sector, Q1 2012

Total Assets Transactions									
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	11,801	0	2,925	42	2,883	148	66	17	64
Financial corporations	-42,742	3	-61,885	-30,687	-31,197	72,320	62,423	8,264	1,633
Monetary financial institutions	-73,282	3	-63,143	-30,029	-33,114	46,482	47,740	-1,261	3
Other financial intermediaries and financial auxiliaries	25,630	0	-899	-693	-207	29,121	14,534	12,856	1,731
Insurance corporations and pension funds	4,910	0	2,158	34	2,123	-3,283	149	-3,331	-101
General government	1,763	0	1,740	0	1,740	-124	0	-32	-92
Households and non-profit institutions serving households	1,848	0	665	-833	1,498	-13	0	-13	0
Rest of the world	1,540	0	-44,944	-164	-44,780	-5,688	546	-8,888	2,655

Total Liabilities Transactions									
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	11,038	0	0	0	0	676	0	830	-154
Financial corporations	-40,318	0	-76,311	-1,607	-74,704	-4,055	-347	-6,249	2,541
Monetary financial institutions	-83,028	0	-76,311	-1,607	-74,704	-7,190	0	-7,190	0
Other financial intermediaries and financial auxiliaries	37,463	0	0	0	0	3,099	-347	905	2,541
Insurance corporations and pension funds	5,248	0	0	0	0	36	0	36	0
General government	5,792	0	449	7	441	-5,724	-383	-5,325	-16
Households and non-profit institutions serving households	-2,091	0	0	0	0	0	0	0	0
Rest of the world	-214	0	-25,636	-30,043	4,407	75,746	63,765	10,092	1,889

Table D.1.2 – continued

Total Assets Transactions

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
7,161	6,469	692	2,096	14	1,472	609	101	0	0	101	-630	Non-financial corporations
-70,222	2,118	-72,340	12,409	n.a.	n.a.	3,451	312	0	0	312	4,321	Financial corporations
-54,957	-770	-54,187	-195	-153	0	-42	0	0	0	0	-1,472	Monetary financial institutions
-15,481	2,273	-17,754	8,342	6,340	627	1,375	0	0	0	0	4,546	Other financial intermediaries and financial auxiliaries
215	614	-399	4,262	2,143	0	2,118	312	0	0	312	1,247	Insurance corporations and pension funds
380	231	148	-50	20	0	-70	0	0	0	0	-181	General government
0	0	0	168	-58	227	0	880	523	124	233	148	Households and non-profit institutions serving households
11,101	13,532	-2,431	32,631	-1,967	11,341	23,257	4,464	4,055	0	409	3,975	Rest of the world

Total Liabilities Transactions

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
1,884	3,031	-1,147	7,096	-91	7,187	0	0	0	0	0	1,382	Non-financial corporations
2,569	13,861	-11,292	24,602	-232	-2,315	27,149	5,456	4,578	124	754	7,422	Financial corporations
0	0	0	7,344	0	-1,705	9,049	0	0	0	0	-6,871	Monetary financial institutions
2,462	13,881	-11,418	17,965	-232	97	18,100	0	0	0	0	13,937	Other financial intermediaries and financial auxiliaries
107	-20	127	-707	0	-707	0	5,456	4,578	124	754	356	Insurance corporations and pension funds
9,503	-9	9,512	2	0	2	0	0	0	0	0	1,563	General government
-2,018	-305	-1,713	0	0	0	0	0	0	0	0	-73	Households and non-profit institutions serving households
-63,519	5,772	-69,291	15,554	6,662	8,793	99	302	0	0	302	-2,661	Rest of the world

n.a. not available.

Section E

Public Finances and Competitiveness Indicators

Table E.1: Government Debt^a

€ million	2011		2012	
	30 Sep.	30 Dec.	30 Mar.	29 Jun.
End-quarter				
Government Debt				
Amount outstanding (gross)				
Euro-denominated debt				
Government stock	89,589	85,310	79,651	83,131
Exchequer Bills/Notes, Central Treasury Notes	250	2,572	1,421	1,764
Saving Certificates/Stamps, National Solidarity Bonds	4,740	4,841	5,015	5,209
Prize Bonds	1,431	1,449	1,501	1,539
Savings Bonds	4,725	4,781	4,956	5,084
National Instalment Savings	470	473	469	469
Ways and means	1,798	1,697	2,232	2,183
Borrowings from Central Bank, etc.	-	-	-	-
Local loans funds	5	5	5	5
Short-term paper	239	1,285	719	699
FX contracts	300	3,042	604	1,357
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	602	602	602	602
IMF ^b	3,275	4,674	5,853	6,357
EFSM	13,400	13,900	18,400	18,400
EFSF	3,664	6,664	9,409	12,209
Bilateral loans	-	-	100	250
Medium-term notes	-	-	-	-
Swaps	5,416	5,416	10,992	11,476
Total euro-denominated debt	129,904	136,712	141,928	150,734
Non-euro-denominated debt				
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	-	-	-	-
Medium-term notes	96	100	91	100
IMF ^b	5,680	8,437	10,220	11,766
EFSM	-	-	-	-
EFSF	-	-	-	-
UK Bilateral Loan	-	483	1,451	1,500
Swaps	-5,714	-5,949	-11,266	-12,429
Short-term paper	303	49	120	418
FX contracts	-304	-3,059	-605	-1,351
Total non-euro-denominated debt	62	60	12	3
Gross debt	129,966	136,773	141,940	150,737
Residual Maturity Profile				
Amounts due to mature in:				
– ≤ 1 year	8,111	12,309	7,181	7,193
– Over 1 year but ≤ 5 years	54,653	52,030	54,461	55,532
– Over 5 years but ≤ 10 years	56,316	61,547	64,912	66,357
– Over 10 years	10,886	10,886	15,386	21,655
Total	129,966	136,773	141,940	150,737

a The term Government debt refers to central government debt. An advance release calendar for central government debt is shown on the IMF Special Data Dissemination Standards (SDDS) Bulletin Board.

b The IMF liability is denominated in SDRs. The € equivalent of the SDR liability is equal to the SDR amount divided by the EUR/SDR exchange rate. The EUR portion of this € equivalent amount is equal to the SDR amount multiplied by the EUR currency amount (0.423).

Source: NTMA.

Table E.2: Irish Government Long-Term Bonds – Nominal Holdings

€ million	2011		2012	
	30 Sep.	30 Dec.	30 Mar.	29 Jun.
End-quarter				
1. Resident ^a	18,407	18,865	18,755	22,447
– MFIs and Central Bank	15,441	15,666	17,158	20,083
– General government	879	806	349	841
– Financial intermediaries	1,822	2,157	1,043	1,339
i) Financial auxiliaries	333	337	445	501
ii) Insurance corporations and pension funds	1,147	1,192	453	452
iii) Other financial intermediaries	341	627	146	386
– Non-financial corporations	48	12	10	8
– Households	217	224	195	176
2. Rest of world	71,182	66,445	60,896	60,684
Total	89,589	85,310	79,651	83,132
3. Amounts due to mature in:				
– Less than 3 years	27,838	23,461	17,908	17,903
– 3 or more years but less than 5 years	10,184	10,209	10,176	10,176
– 5 or more years but less than 10 years	43,283	43,356	43,283	43,300
– 10 or more years but less than 15 years	8,284	8,284	8,284	11,753
– 15 or more years	0	0	0	0
Total	89,589	85,310	79,651	83,132

^a Above conform to ESA95 standard. Financial auxiliaries include, for example, insurance and security brokers and investment advisors, etc. Other financial intermediaries include mutual funds, financial leasing, etc.

Table E.3: Harmonised Competitiveness Indicators for Ireland (HCIs)

1999 Q1 = 100	Nominal HCI (Monthly average)	Real HCI (Deflated by consumer prices)	Real HCI (Deflated by producer prices)
2006			
January	102.78	113.33	104.28
February	102.14	113.11	104.66
March	102.65	113.55	104.71
April	103.52	114.48	105.62
May	104.67	115.95	107.25
June	104.82	116.03	107.13
July	104.93	116.30	106.59
August	104.97	116.65	107.34
September	104.73	116.21	107.98
October	104.30	115.84	105.53
November	104.96	116.43	105.56
December	105.83	117.58	106.78
2007			
January	105.06	116.80	106.73
February	105.35	117.13	105.62
March	106.08	117.95	105.61
April	106.74	118.71	106.77
May	106.67	118.65	107.19
June	106.22	118.14	107.63
July	106.81	118.87	107.84
August	106.69	118.76	108.83
September	107.58	119.73	108.36
October	108.39	120.40	109.74
November	109.79	121.91	109.92
December	109.80	121.75	111.41
2008			
January	110.55	122.28	110.52
February	110.50	122.38	111.39
March	113.03	125.50	113.36
April	114.12	126.31	115.87
May	113.56	125.61	114.63
June	113.54	125.46	114.01
July	113.98	125.22	113.71
August	111.99	122.91	114.22
September	110.73	121.64	110.84
October	108.14	118.82	109.31
November	107.56	118.63	108.59
December	111.58	122.95	110.78
2009			
January	111.27	122.38	110.28
February	109.75	119.79	109.62
March	111.68	121.65	111.20
April	111.09	120.82	110.85
May	111.66	120.71	111.25
June	112.22	120.99	111.52
July	112.35	120.52	113.25
August	112.66	120.55	111.38
September	113.92	121.38	113.43
October	114.90	122.00	113.66
November	114.76	121.52	112.74
December	113.86	119.92	111.72
2010			
January	112.24	117.97	109.82
February	110.25	115.14	108.90
March	110.04	114.33	107.51
April	108.77	112.77	107.32
May	105.94	109.85	105.25
June	104.13	107.83	102.35
July	105.90	109.87	104.22
August	105.74	109.50	104.20
September	106.32	109.67	105.12
October	109.31	112.56	106.67
November	108.14	110.83	106.30
December	106.50	109.17	103.56
2011			
January	106.65	109.33	103.29
February	107.55	110.06	104.08
March	108.97	111.20	105.28
April	110.45	112.50	107.02
May	109.87	111.55	107.69
June	110.14	111.51	106.66
July	109.45	110.68	105.89
August	109.55	110.61	106.03
September	108.31	109.10	104.50
October	108.41	109.37	103.96
November	107.82	108.65	103.91
December	106.39	107.29	102.96
2012			
January	104.93	105.72	102.13
February	105.67	106.72	102.71
March	105.80	107.22	102.45
April	105.44	106.49	102.80
May	104.12	105.05	101.99
June	103.50	104.35	100.90
July	102.07	102.77	99.76

Notes:

1. See article entitled "Measuring Ireland's Price and Labour Cost Competitiveness" in the Bank's Quarterly Bulletin No. 1 of 2010.
2. A rise in an indicator implies a disimprovement in competitiveness, while a fall in an indicator implies an improvement.
3. These indicators are available from January 1995 in excel format on the Bank's website.
4. Real HCIs may be subject to revisions to reflect latest available price data..

Table E.3: Harmonised Competitiveness Indicators for Ireland (HCIs) – continued

1999 Q1 = 100	Real HCI (Deflated by GDP)	Real HCI (Deflated by whole economy unit labour costs)	Real HCI (Deflated by whole economy compensation per employee)
1999			
Q1	100.00	100.00	100.00
Q2	97.27	100.30	97.76
Q3	99.49	97.01	97.83
Q4	98.72	95.54	96.94
2000			
Q1	97.19	94.49	95.28
Q2	95.89	91.98	94.78
Q3	96.09	92.07	95.62
Q4	95.12	91.13	96.14
2001			
Q1	100.17	94.54	100.24
Q2	99.49	94.11	98.64
Q3	101.86	96.78	99.93
Q4	102.14	96.91	100.08
2002			
Q1	103.51	94.41	100.11
Q2	103.57	96.40	102.29
Q3	107.64	97.42	105.71
Q4	109.74	98.49	106.62
2003			
Q1	113.54	103.73	111.20
Q2	116.53	106.65	115.24
Q3	116.60	107.57	115.79
Q4	118.08	107.21	118.08
2004			
Q1	119.33	111.37	120.68
Q2	118.00	111.31	119.09
Q3	118.00	112.66	120.21
Q4	120.63	113.71	121.47
2005			
Q1	121.26	116.47	124.47
Q2	120.56	115.11	124.91
Q3	118.34	117.48	125.36
Q4	118.25	116.53	124.67
2006			
Q1	119.67	117.54	127.40
Q2	120.11	120.08	128.81
Q3	123.28	119.31	128.42
Q4	121.76	121.65	128.12
2007			
Q1	122.59	118.11	130.25
Q2	123.80	124.05	132.91
Q3	120.77	129.33	136.68
Q4	123.63	130.61	141.75
2008			
Q1	122.62	132.05	141.23
Q2	123.26	138.81	146.90
Q3	121.28	136.57	148.06
Q4	118.74	136.09	148.49
2009			
Q1	116.24	132.63	149.05
Q2	115.82	128.66	144.01
Q3	115.43	126.63	141.42
Q4	115.97	126.35	139.14
2010			
Q1	111.62	118.62	134.87
Q2	107.41	115.27	130.85
Q3	105.69	113.07	128.54
Q4	103.86	114.87	130.31
2011			
Q1	104.49	113.36	129.70
Q2	107.97	111.91	132.91
Q3	106.00	113.85	133.17
Q4	103.59	110.49	128.37
2012			
Q1	100.80	107.94	n.a.

Table E.3: Harmonised Competitiveness Indicators for Ireland (HCIs) – *continued***2000 Q1=100**

	Real HCI (Deflated by manufacturing unit labour costs)	Real HCI (Deflated by manufacturing compensation per employee)
2000		
Q1	100.00	100.00
Q2	93.50	101.48
Q3	84.82	101.61
Q4	79.31	101.56
2001		
Q1	83.24	105.14
Q2	88.91	104.54
Q3	88.49	106.00
Q4	87.08	104.33
2002		
Q1	80.25	103.98
Q2	76.86	105.60
Q3	79.73	108.25
Q4	82.40	109.48
2003		
Q1	89.04	111.59
Q2	90.69	115.85
Q3	89.45	114.07
Q4	84.77	114.07
2004		
Q1	91.08	113.39
Q2	93.87	112.97
Q3	93.97	112.85
Q4	96.21	114.16
2005		
Q1	98.32	116.65
Q2	96.42	119.12
Q3	101.20	124.69
Q4	98.78	127.27
2006		
Q1	99.30	124.68
Q2	92.87	123.04
Q3	98.40	120.00
Q4	102.04	118.84
2007		
Q1	97.69	120.89
Q2	107.35	122.56
Q3	103.07	122.81
Q4	96.83	129.92
2008		
Q1	110.20	134.29
Q2	109.81	136.64
Q3	104.90	139.76
Q4	100.28	147.16
2009		
Q1	88.17	154.57
Q2	83.48	146.23
Q3	81.32	137.88
Q4	84.31	139.71
2010		
Q1	72.00	133.53
Q2	72.18	129.57
Q3	66.89	128.01
Q4	61.68	125.28
2011		
Q1	58.05	124.92
Q2	57.70	125.96
Q3	55.29	125.64
Q4	52.69	125.78

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